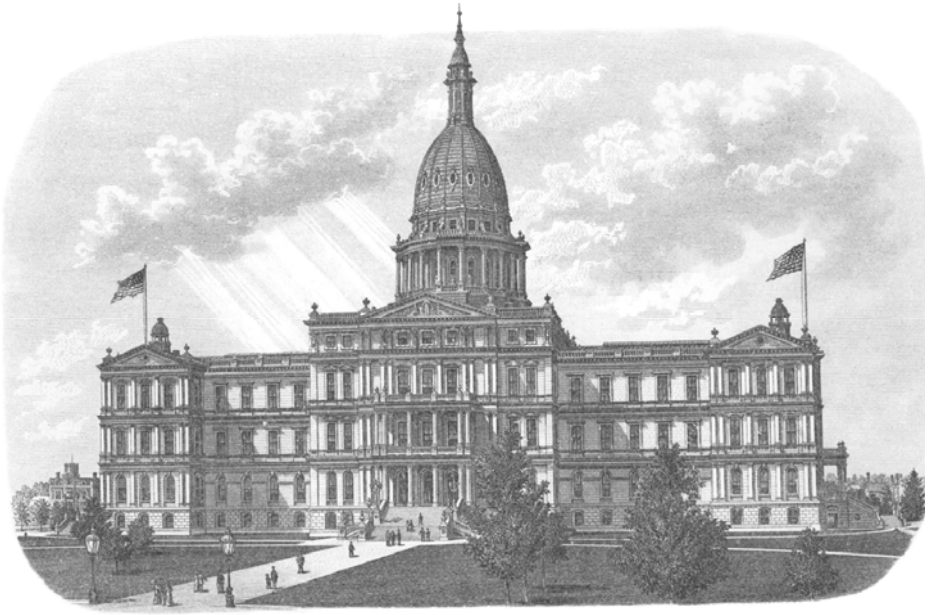
Michigan Register

Issue No. 9 – 2009 (Published June 1, 2009)



GRAPHIC IMAGES IN THE

MICHIGAN REGISTER

COVER DRAWING

Michigan State Capitol:

This image, with flags flying to indicate that both chambers of the legislature are in session, may have originated as an etching based on a drawing or a photograph. The artist is unknown. The drawing predates the placement of the statue of Austin T. Blair on the capitol grounds in 1898.

(Michigan State Archives)

PAGE GRAPHICS

Capitol Dome:

The architectural rendering of the Michigan State Capitol's dome is the work of Elijah E. Myers, the building's renowned architect. Myers inked the rendering on linen in late 1871 or early 1872. Myers' fine draftsmanship, the hallmark of his work, is clearly evident.

Because of their size, few architectural renderings of the 19th century have survived. Michigan is fortunate that many of Myers' designs for the Capitol were found in the building's attic in the 1950's. As part of the state's 1987 sesquicentennial celebration, they were conserved and deposited in the Michigan State Archives.

(Michigan State Archives)

East Elevation of the Michigan State Capitol:

When Myers' drawings were discovered in the 1950's, this view of the Capitol – the one most familiar to Michigan citizens – was missing. During the building's recent restoration (1989-1992), this drawing was commissioned to recreate the architect's original rendering of the east (front) elevation.

(Michigan Capitol Committee)

Michigan Register

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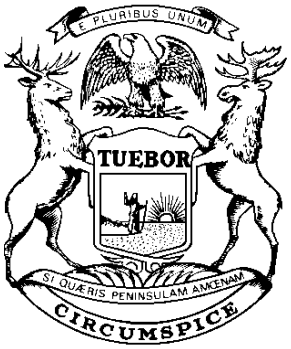
The Michigan Compiled Laws



Issue No. 9— 2009
(This issue, published June 1, 2009, contains
documents filed from May 1, 2009 to May 15, 2009)

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Peter Plummer, Executive Director, State Office of Administrative Hearings and Rules; **Deidre O'Berry**, Administrative Rules Analyst for Operations and Publications.

Jennifer M. Granholm, Governor

John D. Cherry Jr., Lieutenant Governor

PREFACE

PUBLICATION AND CONTENTS OF THE MICHIGAN REGISTER

The State Office of Administrative Hearings and Rules publishes the *Michigan Register*.

While several statutory provisions address the publication and contents of the *Michigan Register*, two are of particular importance.

24.208 Michigan register; publication; cumulative index; contents; public subscription; fee; synopsis of proposed rule or guideline; transmitting copies to office of regulatory reform.

Sec. 8.

(1) The office of regulatory reform shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

(a) Executive orders and executive reorganization orders.

(b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.

(c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year.

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules.

(f) Administrative rules filed with the secretary of state.

(g) Emergency rules filed with the secretary of state.

(h) Notice of proposed and adopted agency guidelines.

(i) Other official information considered necessary or appropriate by the office of regulatory reform.

(j) Attorney general opinions.

(k) All of the items listed in section 7(m) after final approval by the certificate of need commission under section 22215 of the public health code, 1978 PA 368, MCL 333.22215.

(2) The office of regulatory reform shall publish a cumulative index for the Michigan register.

(3) The Michigan register shall be available for public subscription at a fee reasonably calculated to cover publication and distribution costs.

(4) If publication of an agency's proposed rule or guideline or an item described in subsection (1)(k) would be unreasonably expensive or lengthy, the office of regulatory reform may publish a brief synopsis of the proposed rule or guideline or item described in subsection (1)(k), including information on how to obtain a complete copy of the proposed rule or guideline or item described in subsection (1)(k) from the agency at no cost.

(5) An agency shall electronically transmit a copy of the proposed rules and notice of public hearing to the office of regulatory reform for publication in the Michigan register.

4.1203 Michigan register fund; creation; administration; expenditures; disposition of money received from sale of Michigan register and amounts paid by state agencies; use of fund; price of Michigan register; availability of text on internet; copyright or other proprietary interest; fee prohibited; definition.

Sec. 203.

(1) The Michigan register fund is created in the state treasury and shall be administered by the office of regulatory reform. The fund shall be expended only as provided in this section.

(2) The money received from the sale of the Michigan register, along with those amounts paid by state agencies pursuant to section 57 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.257, shall be deposited with the state treasurer and credited to the Michigan register fund.

(3) The Michigan register fund shall be used to pay the costs of preparing, printing, and distributing the Michigan register.

(4) The department of management and budget shall sell copies of the Michigan register at a price determined by the office of regulatory reform not to exceed the cost of preparation, printing, and distribution.

(5) Notwithstanding section 204, beginning January 1, 2001, the office of regulatory reform shall make the text of the Michigan register available to the public on the internet.

(6) The information described in subsection (5) that is maintained by the office of regulatory reform shall be made available in the shortest feasible time after the information is available. The information described in subsection (5) that is not maintained by the office of regulatory reform shall be made available in the shortest feasible time after it is made available to the office of regulatory reform.

(7) Subsection (5) does not alter or relinquish any copyright or other proprietary interest or entitlement of this state relating to any of the information made available under subsection (5).

(8) The office of regulatory reform shall not charge a fee for providing the Michigan register on the internet as provided in subsection (5).

(9) As used in this section, "Michigan register" means that term as defined in section 5 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.205.

CITATION TO THE MICHIGAN REGISTER

The *Michigan Register* is cited by year and issue number. For example, 2001 MR 1 refers to the year of issue (2001) and the issue number (1).

CLOSING DATES AND PUBLICATION SCHEDULE

The deadlines for submitting documents to the State Office of Administrative Hearings and Rules for publication in the *Michigan Register* are the first and fifteenth days of each calendar month, unless the submission day falls on a Saturday, Sunday, or legal holiday, in which event the deadline is extended to include the next day which is not a Saturday, Sunday, or legal holiday. Documents filed or received after 5:00 p.m. on the closing date of a filing period will appear in the succeeding issue of the *Michigan Register*.

The State Office of Administrative Hearings and Rules is not responsible for the editing and proofreading of documents submitted for publication.

Documents submitted for publication should be delivered or mailed in an electronic format to the following address: MICHIGAN REGISTER, State Office of Administrative Hearings and Rules, Ottawa Building - Second Floor, 611 W. Ottawa, P.O. Box 30695, Lansing, MI 48933.

RELATIONSHIP TO THE MICHIGAN ADMINISTRATIVE CODE

The *Michigan Administrative Code* (1979 edition), which contains all permanent administrative rules in effect as of December 1979, was, during the period 1980-83, updated each calendar quarter with the publication of a paperback supplement. An annual supplement contained those permanent rules, which had appeared in the 4 quarterly supplements covering that year.

Quarterly supplements to the Code were discontinued in January 1984, and replaced by the monthly publication of permanent rules and emergency rules in the *Michigan Register*. Annual supplements have included the full text of those permanent rules that appear in the twelve monthly issues of the *Register* during a given calendar year. Emergency rules published in an issue of the *Register* are noted in the annual supplement to the Code.

SUBSCRIPTIONS AND DISTRIBUTION

The *Michigan Register*, a publication of the State of Michigan, is available for public subscription at a cost of $400.00 per year. Submit subscription requests to: State Office of Administrative Hearings and Rules, Ottawa Building - Second Floor, 611 W. Ottawa, P.O. Box 30695, Lansing, MI 48933. Checks Payable: State of Michigan. Any questions should be directed to the State Office of Administrative Hearings and Rules (517) 335-2484.

INTERNET ACCESS

The *Michigan Register* can be viewed free of charge on the Internet web site of the State Office of Administrative Hearings and Rules: www.michigan.gov/cis/0,1607,7-154-10576_35738---,00.html

Issue 2000-3 and all subsequent editions of the *Michigan Register* can be viewed on the State Office of Administrative Hearings and Rules Internet web site. The electronic version of the *Register* can be navigated using the blue highlighted links found in the Contents section. Clicking on a highlighted title will take the reader to related text, clicking on a highlighted header above the text will return the reader to the Contents section.

Peter Plummer, Executive Director
State Office of Administrative Hearings and Rules

2009 PUBLICATION SCHEDULE

Issue No.	Closing Date for Filing or Submission Of Documents (5 p.m.)	Publication Date
1	January 15, 2009	February 1, 2009
2	February 1, 2009	February 15, 2009
3	February 15, 2009	March 1, 2009
4	March 1, 2009	March 15, 2009
5	March 15, 2009	April 1, 2009
6	April 1, 2009	April 15, 2009
7	April 15, 2009	May 1, 2009
8	May 1, 2009	May 15, 2009
9	May 15, 2009	June 1, 2009
10	June 1, 2009	June 15, 2009
11	June 15, 2009	July 1, 2009
12	July 1, 2009	July 15, 2009
13	July 15, 2009	August 1, 2009
14	August 1, 2009	August 15, 2009
15	August 15, 2009	September 1, 2009
16	September 1, 2009	September 15, 2009
17	September 15, 2009	October 1, 2009
18	October 1, 2009	October 15, 2009
19	October 15, 2009	November 1, 2009
20	November 1, 2009	November 15, 2009
21	November 15, 2009	December 1, 2009
22	December 1, 2009	December 15, 2009
23	December 15, 2009	January 1, 2010
24	January 1, 2010	January 15, 2010

CONTENTS

ADMINISTRATIVE RULES FILED WITH SECRETARY OF STATE

Department of Treasury
Michigan Higher Education Assistance Authority (SOAHR # 2006-023)
Children of Veterans Tuition Grant Program 2-4

Department of Community Health
Bureau of Health Professionals (SOAHR # 2008-003)
General Rules 5-6

Department of Energy, Labor & Economic Growth
Director's Office (SOAHR # 2008-007)
Unarmed Combat Rules 7-32

Department of Community Health
Board of Physical Therapy (SOAHR # 2008-010)
General Rules 33-38

Department of Natural Resources
Wildlife Division (SOAHR # 2008-026)
Wilderness and Natural Areas 39-40

Department of Agriculture
Office of the Racing Commissioner (SOAHR # 2008-036)
Wilderness and Natural Areas 41-44

Department of Community Health
Director's Office (SOAHR # 2009-002)
Psychology General Rules 45-47

PROPOSED ADMINISTRATIVE RULES, NOTICES OF PUBLIC HEARINGS

Department of Energy, Labor & Economic Growth
Office of Financial and Insurance Regulation (SOAHR # 2006-026)
Insurance Policy Forms - Nonconforming Clauses 49-52

Department of Community Health
Bureau of Epidemiology (SOAHR # 2007-027)
Communicable and Related Diseases 53-69

Department of Energy, Labor & Economic Growth
Bureau of Construction Code (SOAHR # 2008-019)
Part 8 Electrical Code 70-76

Department of Environmental Quality
Water Bureau (SOAHR # 2008-027)
Supplying Water to the Public 77-296

ENROLLED SENATE AND HOUSE BILLS SIGNED INTO LAW OR VETOED

Table (2009 Session) 298-302

MICHIGAN ADMINISTRATIVE CODE TABLE

Table (2009 Session) 304-306

CUMULATIVE INDEX

Cumulative Index (2009) 307-309

ADMINISTRATIVE RULES
FILED WITH THE SECRETARY OF STATE

MCL 24.208 states in part:

"Sec. 8. (1) The State Office of Administrative Hearings and Rules shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(f) Administrative rules filed with the secretary of state."

ADMINISTRATIVE RULES

SOAHR 2006-023

DEPARTMENT OF TREASURY

MICHIGAN HIGHER EDUCATION ASSITANCE AUTHORITY

CHILDREN OF VETERANS TUITION GRANT PROGRAM

Filed with the Secretary of State on May 7, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the Michigan Higher Education Assistance Authority by 2005 PA 248, MCL 390.1343)

R 35.651, R 35.652, R 35.652a, R 35.653, and R 35.654 of the Michigan Administrative Code are rescinded and R 390.1901, R 390.1902, R 390.1903, R 390.1904, R 390.1905, R 390.1906, R 390.1907, and R 390.1908 are added to the Code as follows:

R 35.651 Rescinded.

R 35.652 Rescinded.

R 35.652a Rescinded.

R 35.653 Rescinded.

R 35.654 Rescinded.

R 390.1901 Definitions.

Rule 1901. As used in these rules:

(a) "Act" means the children of veterans tuition grant act, 2005 PA 248, MCL 390.1341 to 390.1346.

(b) "Eligible age" means the student has reached 17 years of age and has not yet reached 26 years of age at the start of the enrollment period.

(c) "Eligible program" means courses at an eligible institution that are applicable or transferable to a baccalaureate or associate degree.

(d) "Enrollment" means the period of time defined by a participating school's academic calendar as the times when semesters or terms of instruction begin and end.

(e) "Full time enrollment" is defined as enrollment in 24 semester or 36 terms credits within an academic year.

(f) "Part-time enrollment" means students enrolled at least half time as determined on an enrollment count date that is established by each eligible institution.
(g) "Participating school" means an eligible postsecondary institution as defined in section 2 of the act that elects to participate in the children of veterans tuition grant program.
(h) "Satisfactory academic progress" means compliance with the standards of enrollment established by the eligible institution pursuant to the federal higher education act of 1965, as amended, regarding minimal criteria of academic progress needed to maintain eligibility for federal title IV student aid programs.
(i) "Tuition-specific gift aid" means a financial aid scholarship or grant that is designated specifically for the payment of postsecondary tuition charges and that cannot be used to pay any other education-related expenses.

R 390.1902 Statutorily defined terms used in rules.
Rule 1902. Except as otherwise provided in these rules, a term defined in the act has the same meaning when used in these rules.

R 390.1903 Responsibilities of participating school.
Rule 1903. A participating school shall do all of the following:
(a) Upon receipt of a letter of eligibility provided by the department of treasury, shall bill the authority for funds on behalf of students meeting the eligibility requirements described in section 4 of the act and these rules.
Apply funds to eligible students' accounts.
(c) Confirm enrollment and submit other reports regarding expenditures and related data to the authority on a timely basis.
Monitor the grade point averages and academic progress for grant recipients.
Return refunds to the program promptly during the academic year.
(f) Not bill for tuition for a term or semester ending before an application has been received by the authority.
(g) Tuition may be billed for repeat courses, online courses, and off-campus study courses.

R 390.1904 Additional grant eligibility requirements.
Rule 1904. The authority, in conjunction with a participating school, may determine that an individual is eligible for a grant upon meeting the requirements of section 4 of the act and all of the following requirements:
(a) Possesses a high school diploma or GED certificate, or is accepted for enrollment at an eligible postsecondary institution as defined in section 2(c) of the act.
(b) Is enrolled at least half time as determined at the end of the participating school's refund period.
(c) Is not in default on a federal title IV student loan and does not owe a refund of a federal title IV grant.
(d) Is making satisfactory academic progress as determined by the participating school.
(e) Meets the program's eligible age requirement prior to the beginning of an enrollment period.
(f) Is not currently incarcerated in a correctional facility on either a full-time or part-time basis. Students become ineligible for funds immediately if incarcerated or at the start of the next enrollment term if it is beyond the participating school's refund period.

R 390.1905 Probation, suspension, and termination due to grades.

Rule 1905. An eligible student who meets the requirements of the act and R 390.1904 shall receive benefits under the act if the student's grade point average remains at or above 2.25. Both of the following shall apply:

(a) A student who fails to achieve a cumulative grade point average of 2.25 will be placed on probationary status for 1 term or semester during which time the student may continue to receive grant assistance.

(b) A student who fails to achieve a cumulative grade point average of 2.25 after being placed on probationary status for 1 term or semester shall be placed on suspension during which time grant assistance will be suspended. The student will remain on suspension until documentation of the required 2.25 cumulative grade point average is received by the authority in accordance with R 390.1906(b).

R 390.1906 Reinstatement of eligibility.

Rule 1906. Reinstatement of eligibility for assistance under this act shall be granted under the following circumstances:

(a) A student who has become ineligible for assistance for failure to comply with the provisions of the act or R 390.1904 may be reinstated if he or she has a cumulative grade point average of 2.25 and can provide evidence to the authority of complying with the act and R 390.1904.

(b) A student who has become ineligible for assistance pursuant to R 390.1905(b) may be reinstated if he or she meets both of the following criteria:

(i) After a term or semester of being placed on suspension, the student raises his or her cumulative grade point average to 2.25 or above and can provide documentation to the authority of such through a college transcript.

(ii) The student continues to meet the provisions of the act and R 390.1904.

R 390.1907 Length of eligibility.

Rule 1907. Students meeting all eligibility requirements in the act and in these rules shall remain eligible for grant assistance until any of the following occur:

(a) The student has received 4 academic years of grant assistance which is counted as 8 semesters or 12 terms of grant payments.

(b) The student has received a total of $11,200 in grant assistance.

(c) The student reaches age 26 prior to the term of enrollment for which grant assistance is requested.

R 390.1908 Grant amount.

Rule 1908. The maximum grant a student may receive is $2,800 per academic year, or the amount of eligible costs minus other tuition-specific gift aid, whichever amount is les**s.**

ADMINISTRATIVE RULES

SOAHR 2008-003

DEPARTMENT OF COMMUNITY HEALTH

BUREAU OF HEALTH PROFESSIONS

GENERAL RULES

Filed with the Great Seal May 15, 2009

(By authority conferred on the director of the department of community health by sections 16145(3), 16174(1)(e),16194, and 16201 of 1978 PA 368, MCL 333.16145(3), 333.16174(1)(e), 333.16194, and 333.16201 and Executive Reorganization Order Nos. 1996-1, 1996-2 and 2003-1, MCL 330.3101, 445.2001 and 445.2011)

R 338.7001 and R 338.7002 of the Michigan Administrative Code are amended and R 338.7001a and R 338.7003 are added as follows:

R 338.7001 Definitions.

As used in these rules:

(a) "CMS" means centers for medicare and medicaid services, U.S. department of health and human services.

(b) "Code" means 1978 PA 368, MCL 333.1101.

(c) "Department" means the department of community health.

(d) "Stark law" means section 1877 of part d of title XVIII of the social security act, 42 U.S. code 1395nn.

R 338.7001a Biennial renewal; authorized boards; license renewal content; fees.

Rule 1a. (1) The license or registration renewals issued for the following boards, task force, or committee shall be valid for a period of 2 years commencing on the following dates and shall be renewed every 2 years upon receipt of payment and compliance with renewal requirements, if appropriate:

Acupuncture	10/1
Audiology	1/1
Chiropractic	12/1
Counseling	1/1
Dietetics and nutrition	10/1
Marriage and family therapy	2/1
Nursing	4/1
Nursing home administrators	11/1
Occupational therapy	6/1
Optometry	7/1
Pharmacy	7/1

Physical therapy	8/1
Physician's assistants	9/1
Psychology	9/1
Respiratory therapy	1/1
Sanitarians	12/1
Speech-Language Pathology	10/31
Veterinary medicine	1/1

(2) The biennial fees are double the per annum fees approved by the legislature.

(3) A license or registration having a limitation may be renewed for a term less than the biennial cycle.

R 338.7002 Triennial renewal; authorized boards; license renewal content; fees.

Rule 2. (1) The license renewals issued for the following boards shall be valid for a period of 3 years commencing on the following dates and shall be renewed every 3 years upon receipt of payment and compliance with renewal requirements, if appropriate:

Athletic training	10/1
Dentistry	9/1
Massage Therapy	10/31
Medicine	2/1
Osteopathic medicine and surgery	1/1
Podiatric medicine and surgery	3/1
Social work	5/1

(2) The triennial fees are triple the per annum fees approved by the legislature.

(3) A license having a limitation may be renewed for a term less than the triennial cycle.

R 338.7003 "Stark Law" revision; adoption by reference.

Rule 3. (1) In accordance with section 16221(e)(iv)(B) of the code, the department has officially taken notice of the regulations promulgated by cms under the stark law that have been published since June 3, 2002 when the department adopted the federal physician self-referral law. The department has found that the regulations pertain to referrals by physicians for designated health services and that they continue to protect the public from inappropriate referrals by physicians. Therefore, the department adopts by reference, as provided for in section 16221(e)(iv)(B) of the code, the new regulations promulgated by cms known as "*Phase III*" which includes the following: Final Rule, 72 Fed. Reg. 51012 (September 5, 2007), effective December 4, 2007, Final Rule, 72 Fed. Reg. 64161 (November 15, 2007), effective December 4, 2007, (rule delaying effect of certain provisions in 72 FR 51012 until December 4, 2008), and Correction Notice of Final Rule, 72 Fed. Reg. 68075 (December 4, 2007). The department also adopts by reference the new exceptions to the stark law promulgated by cms concerning electronic prescribing and health records arrangements which include the following: Final Rule, 71 Fed. Reg. 45140 (August 8, 2006), effective October 10, 2006.

(2) All federal regulations noted in subrule (1) of this rule are available at no cost at www.access.gpo.gov. These regulations also are available for inspection and distribution at cost from the Bureau of Health Professions, Michigan Department of Community Health, 611 West Ottawa, P.O. Box 30670, Lansing, MI 48909.

ADMINISTRATIVE RULES

SOAHR 2008-007

DEPARTMENT OF ENERGY, LABOR AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

UNARMED COMBAT

Filed with the Secretary of State on April 23, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the department of energy, labor and economic growth by 2004 PA 403, MCL 338.3601 to MCL 338.3633, and ERO 2008-004, MCL 445.2025)

R 339.101, R 339.201, R 339.202, R 339.203, R 339.204, R 339.205, R 339.206, R 339.207, R 339.211, R 339.213, R 339.215, R 339.217, R 339.219, R 339.223, R 339.225, R 339.229, R 339.231, R 339.233, R 339.235, R 339.237, R 339.243, R 339.245, R 339.249, R 339.251, R 339. 253, R 339.255, R 339.257, R 339.259, R 339.261, R 339.265, R 339.267, R 339.269, R 339.303, and R 339.403 of the Michigan Administrative Code are amended, and R 339.103, R 339.202a, R 339.203a, R 339.203b, R 339.203c, R 339.203d, R 339.205a, R 339.206a, R 339.210,R 339.223a, R 339.226, R 339.230, R 339.232, R 339.234, R 339.234a, R 339.235a R 339.246, R 339.246a and R 339.271, are added, and R 339.221 is rescinded, as follows:

PART 1. GENERAL PROVISIONS

R 339.101 Definitions.

Rule 101. (1) As used in these rules:

(a) "Act" means 2004 PA 403, MCL 338.3601, known as the unarmed combat regulatory act.

(b) “Boxer” is a person licensed to engage in a martial arts event in which the sole martial art employed is that of “boxing” as that term is commonly and historically understood.

(c) “Boxing event, contest, or show” means a contest or contests between 2 persons who have agreed to engage in unarmed combat in which only the martial art of boxing is employed.

(d) "Contest" means an individual bout between 2 boxers or 2 mixed martial artists.

(e) “Contestant” means a person who competes in a boxing or mixed martial arts event, contest, or show.

(f) "Department representative" means an individual employed by or under contract with the department who is assigned to assure compliance with the law and rules at a boxing or mixed martial arts event.

(g) "Down" means when any part of a boxer's body, except his or her feet, touches the ring floor, or when the boxer is hanging helplessly over the ropes as a result of a legal blow as ruled by the referee.

(h) "Drug" means a controlled substance as regulated under sections 7101 to 7231 of 1978 PA 368, MCL 333.7101 to 333.7231.

(i) "Gong" means a bell, horn, buzzer, or other audible device approved by the department that has a clear tone loud enough for the contestants and referee to hear.

(j) "License" means the document issued to a person under the act which will enable that person to participate in a boxing or mixed martial arts event, contest, or show as a contestant, official, or promoter which participation would otherwise be prohibited by the act. License includes a permit or approval.

(k) "Mixed martial artist" means a person who is licensed to compete in a mixed martial arts event or contest.

(l) "Mixed martial arts event, contest, or show" means a contest or contests between 2 persons who have agreed to engage in unarmed combat in which mixed martial arts, as defined in the act, are employed.

(m) "Mandatory count of 8" means a required count of 8 that is given by a referee to a boxer who has been knocked down.

(n) "No contest" means that neither contestant wins the contest.

(o) "Passport" means identification issued by the department.

(p) "Reinstatement" means the granting of a license to a person whose license has been revoked or suspended as a result of discipline.

(q) "Relicensure" means the granting of a license to a person whose license has lapsed for failure to renew the license within 60 days after the expiration date.

(r) "Ring" means the enclosure in which the event, contest, or show take place.

(s) "Show" means the program of boxing or mixed martial arts planned for a specific date by the promoter and includes 1 or more individual contests.

(t) "Stalling and faking" means that a contestant is pulling his or her punches or holding an opponent or deliberately maintaining a clinch.

(u) "Standing mandatory count of 8" means a count of 8 that is given at the discretion of a referee to a boxer who has been dazed by a blow and is unable to defend himself or herself.

(2) The terms defined in section 10 of the act have the same meanings when used in these rules.

R 339.103 Amendment; New Jersey rules.

Rule 103. New Jersey Rule 13:46-24A and 13:46-24B, adopted under the act and by authority of the act, are altered, supplemented, updated, and amended, as set forth in these rules.

PART 2. PROFESSIONAL BOXING AND MIXED MARTIAL ARTS

R 339.201 Weight classifications for professional boxers and professional mixed martial artists.

Rule 201. (1) Boxing contestants shall be divided into the following classes and there shall be not more than a 7-pound weight differential for contestants weighing 126 to 199 pounds, and not more than a 5-pound weight differential for contestants weighing up to 126 pounds. The weight differential applicable to the lowest weight contestant applies.

(a) Jr. Flyweight Up to 108 lbs.

(b) Flyweight Between 108.1 lbs. and 112 lbs.
(c) Bantamweight Between 112.1 lbs. and 118 lbs.
(d) Jr. Featherweight Between 118.1 lbs. and 122 lbs.
(e) Featherweight Between 122.1 lbs. and 126 lbs.
(f) Jr. Lightweight Between 126.1 lbs. and 130 lbs.
(g) Lightweight Between 130.1 lbs. and 135 lbs.
(h) Jr. Welterweight Between 135.1 lbs. and 140 lbs.
(i) Welterweight Between 140.1 lbs. and 147 lbs.
(j) Jr. Middleweight Between 147.1 lbs. and 154 lbs.
(k) Middleweight Between 154.1 lbs. and 160 lbs.
(l) Super Middleweight Between 160.1 lbs. and 168 lbs.
(m) Lt. Heavyweight Between 168.1 lbs. and 175 lbs.
(n) Cruiserweight Between 175.1 lbs. and 199 lbs.
(o) Heavyweight Over 199 lbs.

(2) Mixed martial artists shall be divided into the following classes and there shall be not more than a 3-pound weight differential for contestants weighing up to 155 pounds and not more than a 5-pound weight differential for contestants weighing 155.1 pounds up to 205 pounds. The weight differential applicable to the lowest weight contestant applies.

(a) Flyweight: Up to 125.9 pounds.
(b) Bantamweight: Between 126 lbs. and 135 lbs.
(c) Featherweight: Between 135.1 lbs. and 145 lbs.
(d) Lightweight: Between 145.1 lbs. and 155 lbs.
(e) Welterweight: Between 155.1 lbs. and 170 lbs.
(f) Middleweight: Between 170.1 lbs. and 185 lbs.
(g) Light Heavyweight: Between 185.1 lbs. and 205 lbs.
(h) Heavyweight: Between 205.1 lbs and 265 lbs.
(i) Super Heavyweight: over 265 pounds.

(3) The department may refuse to permit a contest in which the contestants are not fairly matched. In determining if contestants are fairly matched, the department shall consider all of the following factors:

(a) The win-loss record of the contestants.
(b) The weight differential.
(c) The caliber of opponents.
(d) Each contestant's number of contests.

R 339.202 Weighing in.

Rule 202. (1) Not earlier than the day before the start of an event, or within 48 hours before the start of an event for the heavyweight class, the department representative shall weigh in each contestant in the presence of his or her opponent, unless the opponent is properly excused from appearing.

(2) Contestants shall appear at the time designated for weighing in unless properly excused from appearing.

(3) Only those contestants who have been previously approved for the event shall be permitted to weigh in.

(4) If the weigh-in is held on the day of the event, a contestant who loses more than 2 pounds to make weight and be reweighed shall not compete without the approval of either the physician or the department representative in consultation with the physician.

(5) Male contestants may weigh in wearing only boxers, trunks, or briefs.

(6) Female contestants may weigh in wearing only shorts and a sports bra.
(7) The promoter shall provide a privacy sheet or towel to shield the contestant if necessary.
(8) The date and time of the weigh-in shall be approved by the department.

R 339.202a Substitute contestants.
Rule 202a All substitutions shall be approved by the department and shall occur not later than either of the following:
(a) 2 p.m. on the day of the event.
(b) If an event is held on a Saturday, Sunday, or holiday, then 2 p.m. on the regular business day before the event.

R 339.203 Licensing requirements; boxers and mixed martial artists.
Rule 203 (1) A boxer or mixed martial artist may be licensed as a manager or a second, but shall not be licensed as a timekeeper, judge, referee, or matchmaker.
(2) Contestants shall be licensed at the time of the contest.
(3) A boxer or mixed martial artist shall not act as his or her own promoter.
(4) A boxing or mixed martial arts event or show shall not be promoted, held, or conducted without proper licensure of the event or show and all participants who are required to be licensed under the act or these rules.

R 339.203a Licensing requirements; mixed martial arts referee.
Rule 203a. (1) An applicant for a license as a referee of mixed martial arts events shall be at least 21 years of age and shall submit the results of a medical examination on forms provided by the department with the application for licensure.
(2) The department may require an applicant for licensure as a mixed martial arts referee to complete an examination approved by the department.
(3) The department may require an applicant for licensure as a mixed martial arts referee to obtain amateur experience, training, or other qualifications satisfactory to the department.
(4) An individual may apply for a reciprocal license as a mixed martial arts referee if both of the following apply:
(a) The applicant is actively licensed in good standing as a mixed martial arts referee in another state.
(b) The licensing requirements in the state where the applicant is licensed are substantially equivalent to this state's licensing requirements.

R 339.203b Licensing requirements; mixed martial arts judge.
Rule 203b. (1) An applicant for a license as a judge of mixed martial arts events shall be at least 21 years of age.
(2) The department may require an applicant for licensure as a mixed martial arts judge to complete an examination approved by the department.
(3) The department may require an applicant for licensure as a mixed martial arts judge to obtain amateur experience, training, or other qualifications satisfactory to the department.
(4) An individual may apply for a reciprocal license as a mixed martial arts judge if both of the following apply:
(a) The applicant is actively licensed in good standing as a mixed martial arts judge in another state.

(b) The licensing requirements in the state where the applicant is licensed are substantially equivalent to this state's licensing requirements.

R 339.203c Licensing requirements; mixed martial arts timekeeper.
Rule 203c. (1) An applicant for a license as a timekeeper of mixed martial arts events shall be at least 21 years of age.
(2) The department may require an applicant for licensure as a mixed martial arts timekeeper to complete an examination approved by the department.
(3) The department may require an applicant for licensure as a mixed martial arts timekeeper to obtain amateur experience, training, or other qualifications satisfactory to the department.

R 339.203d Applications for licensure.
Rule 203d. An application for licensure shall be made on a form provided by the department and accompanied by the appropriate fees prescribed in R 339.303.

R 339.204 Number of rounds.
Rule 204. (1) A professional boxing contest shall consist of not less than 4 and not more than 12 scheduled rounds. Three minutes of boxing shall constitute a round for men, and ~~t~~2 minutes of boxing shall constitute a round for women. There shall be a rest period of 1 minute between the rounds.
(2) A boxing promoter shall contract with a sufficient number of contestants to provide a program that consists of not less than 30, and not more than 56, rounds of professional boxing, unless otherwise approved by the department.
(3) When a professional program is held in conjunction with a USA Boxing sanctioned Pro-Am program, the minimum number of required professional rounds may be reduced to 12, provided the total number of scheduled rounds (professional and amateur) is not less than 30.
(4) A mixed martial arts contest shall consist of 3 rounds, of 5 minutes duration, with a 1-minute rest period between each round.
(5) Each championship mixed martial arts contest shall be 5 rounds, of 5 minutes duration, with a 1-minute rest period between each round.
(6) A mixed martial arts promoter shall contract with a sufficient number of contestants to provide a program that consists of not less than 30, and not more than 54, rounds of professional mixed martial arts, unless otherwise approved by the department.

R 339.205 Boxing ring; dimensions and construction.
Rule 205. (1) The boxing ring shall be square and be not less than 16 feet nor more than 24 feet on a side, measured within the ropes. The boxing ring floor shall extend not less than 18 inches beyond the ropes. There shall be padding over the boxing ring post if the ring posts are nearer than 18 inches to the ring ropes.
(2) Two sides of the boxing ring opposite of each other shall have a designated color. One side shall be blue; the opposite side shall be red.
(3) The floor of the boxing ring shall be padded with ensolite or another similar closed-cell foam, with at least a 1-inch layer of foam padding, with a top covering of canvas, duck, or similar material tightly stretched and laced securely in place under the apron. The corners of the ring shall be padded. Material that tends to gather in lumps or ridges shall not be used.

(4) Boxing ring posts shall be not less than 3, nor more than 4, inches in diameter extending from the floor to a height of 58 inches above the floor of the ring. The ropes shall be connected to posts with the extension not shorter than 18 inches.

(5) The boxing ring shall be not more than 4 feet high. Steps shall be provided for use by the contestants and officials.

(6) The boxing ring shall not have less than 4 ropes which may be tightened and which are not less than 1 inch in diameter. The ropes shall be evenly spaced, securely tied halfway between the ring posts, and wrapped in a soft material.

(7) There shall not be any obstruction or object, including, without limitation, a triangular border on any part of the ring floor.

R 339.205a Mixed martial arts ring; dimensions and construction.

Rule 205a. (1) The ring canvas shall be no smaller than 18 feet wide and no larger than 32 feet across.

(2) Two sides opposite of each other shall have a designated color. One side shall be blue; the opposite side shall be red.

(3) The floor of the ring area shall be padded with ensolite or another similar closed-cell foam, with at least a 1-inch layer of foam padding, with a top covering of canvas, duck, or similar material tightly stretched and laced to the platform of the ring. Material that tends to gather in lumps or ridges shall not be used.

(4) The platform of the ring shall not be more than 4 feet above the floor of the building and shall have suitable steps for use by the contestants and officials.

(5) Ring posts shall be made of metal, not more than 6 inches in diameter, extending from the floor of the building to 5 to 7 feet above the floor of the ring, and shall be properly padded in a manner approved by the department.

(6) The fencing used to enclose the ring shall be made of a material that will prevent a contestant from falling out or breaking through the ring onto the floor of the building or onto spectators.

(7) Any metal portion on the interior of the ring shall be covered and padded in a manner approved by the department and shall not be abrasive to the contestants.

(8) The ring shall have 2 entrances unless otherwise approved by the department. The entrance shall be padded or covered so that there is not exposed metal on the interior of the ring.

(9) There shall not be any obstruction on any part of the ring surrounding the area in which the contestants are competing.

(10) Any metal parts used to enforce the ring wall shall be positioned as to not interfere with the safety of the contestants.

(11) There shall be an area of at least 4 feet between the ring and the first row of public seating that allows freedom of movement of contest officials and department personnel.

(12) The area immediately surrounding the ring is subject to the control of the department. Access shall be effectively controlled by event security staff. The seating around the apron of the ring cannot be sold. An area for credentialed media personnel may be allowed with the approval of the department.

(13) There shall be adequate space provided in each contestant's corner for licensed seconds to sit during a round.

(14) The department may request a promoter of a mixed martial arts event, contest, or show to place at least 2 video screens which meet the approval of the department, which will allow patrons to view action inside the ring.

R 339.206 Gloves; boxing.

Rule 206. (1) A boxing contestant's gloves shall be examined before a contest by the referee. If gloves are broken or unclean or if the padding is found to be misplaced or lumpy, they shall be changed before the contest begins and shall be retained by the department representative who shall check them for tampering.

(2) A boxing promoter shall have on hand an extra set of gloves to be used if a boxing contestant's gloves are broken or damaged during the course of a contest.

(3) Boxing gloves for a main event may be put on in the ring after the referee has inspected the hand wraps of both boxing contestants.

(4) During a boxing contest, male contestants shall wear gloves weighing not less than 8 ounces each. Female contestants shall wear gloves weighing not less than 10 ounces each. The weight of the gloves may be changed at the discretion of the department.

(5) Boxing gloves shall be thumb-attached and of the promoter's choice.

(6) Boxing glove laces shall be tied on the outside of the back of the wrist of the gloves and shall be secured with waterproof surgeon's tape. The tips of the laces shall be removed.

R 339.206a Gloves; mixed martial arts.

Rule 206a. (1) For a professional mixed martial arts contest, each contestant shall wear gloves that weigh not less than 4 ounces and not more than 8 ounces. The gloves shall be supplied by the promoter and examined by the referee before a contest.

(2) Mixed martial arts contestants competing against one another in a contest shall use the same size, brand, and model of gloves for their contest unless approved by the department.

(3) The gloves worn by the contestants during a mixed martial arts event shall be examined by the referee. If padding in any glove is found to be misplaced or lumpy or if any glove is found to be unfit, the glove must be changed before the start of the contest or exhibition. Breaking or roughing of gloves is prohibited.

(4) The gloves for every mixed martial arts contest that is designated as a main event shall be new and made to fit the hands of the competitor.

(5) Each mixed martial arts promoter shall have an extra set of gloves of the appropriate weight available to be used in case a glove is broken or otherwise damaged during the course of a mixed martial arts contest.

R 339.207 Hand wrap specifications.

Rule 207. (1) Except as agreed to by the managers of the contestants or as provided in subrule (2) of this rule, a boxing contestant's hand wrap for each hand shall consist of soft gauze that is not more than 10 yards long and not more than 2 inches wide. The gauze shall be held in place by not more than 6 feet of surgeon's tape per hand.

(2) Except as agreed to by the managers of the opposing contestants, light heavyweight, cruiserweight, and heavyweight boxing contestants' hand wraps for each hand shall consist of soft gauze that is not more than 12 yards long and not more than 2 inches wide. Gauze shall be held in place by not more than 8 feet of surgeon's tape per hand.

(3) To protect a boxing contestant's hand, hand wraps may be held in place by winding surgeon's tape not more than 12-inches wide around the hand.

(4) For mixed martial arts contestants in all weight classes, the bandages on each contestant's hand shall consist of soft gauze that is not more than 13 yards long and 2 inches wide, held in place by not more than 10 feet of surgeon's tape, 1 inch wide, for each hand. Both of the following shall apply:

(a) The surgeon's adhesive tape shall be placed directly on each hand for protection near the wrist. The tape may cross the back of the hand twice and extend to cover and protect the knuckles when the hand is clenched to make a fist.
(b) The bandages shall be evenly distributed across the hand.
(5) Hand wraps shall be adjusted in the dressing room under the supervision of the department representative.
(6) Water or any other substance other than surgeon's tape on the hand wraps shall not be used.

R 339.210 Joint supports.
Rule 210. During a contest, contestants may wear neoprene joint supports that do not contain any hard plastic, stabilizer material, or metal support.

R 339.211 Contestant use or administration of any substance.
Rule 211. (1) The use or administration of drugs, stimulants, or nonprescription preparations by or to a contestant during a contest is prohibited, except as provided in this rule.
(2) A substance other than water shall not be given to a contestant during the course of the contest. Water shall only be provided in clear containers.
(3) Petroleum jelly may be allowed around the eyes; however, the use of petroleum jelly, grease, or any other substance on the arms, legs, or body is prohibited.
(4) The use of coagulants, as approved by the ringside physician, may be allowed between rounds to stop the bleeding of minor cuts and lacerations sustained by a contestant. The use of monsel solution, silver nitrate, new skin, flex collodion, or substances having an iron base is prohibited, and the use of such substances by a contestant is cause for immediate disqualification.
(5) The ringside physician shall monitor the use and application of any foreign substances administered to a contestant before or during a contest and shall confiscate any suspicious foreign substance for possible laboratory analysis, the results of which shall be forwarded to the department.

R 339.213 Ringside equipment.
Rule 213. (1) Each promoter shall ~~provide~~ ensure that all of the following items are provided at each event:
(a) A sufficient number of buckets for use by the contestants.
(b) Stools for use by the seconds.
(c) Bio-protective gloves for use by referees, seconds, ringside physicians, and department representatives.
(d) Containers for contestants to spit in.
(e) A portable resuscitator with oxygen.
(f) An ambulance with emergency medical technicians on site until the last contestant leaves the venue. Arrangements shall be made for a replacement ambulance if the first ambulance is required to transport a contestant for medical treatment. The location of the ambulance and the arrangements for substitute ambulance service shall be communicated to the physician.
(g) Seats at ringside for assigned officials. The physician shall be seated near the steps into the ring.

(h) Scales for weigh-ins, which the department may require to be certified. Scales shall be of good quality and capable of registering a weight for participants.
(i) A gong or other audible device.
(j) A public address system.
(k) A separate dressing room for each sex, if contestants of both sexes are participating.
(l) A separate room for physical examinations.
(m) A separate dressing room shall be provided for officials, unless the physical arrangements of the site make the provision of an additional dressing room impossible.
(n) Adequate security personnel.
(o) High stools for use by the judges.
(p) Sufficient contest sheets for ring officials and department representatives.
(q) A cleaning solution used to clean blood and debris in the cage or ring.
(2) A promoter shall only hold boxing or mixed martial arts contests, events, or shows in premises that conform to the laws, ordinances, and regulations of the city, town, or village where the shows are situated.
(3) Restrooms shall not be used as dressing rooms, rooms for physical examinations or weigh-ins.

R 339.215 Contest officials.
Rule 215. (1) Before a contest may be held, the department shall assign not less than the following officials to each contest regulated under these rules:
(a) One referee.
(b) Three judges.
(c) One timekeeper.
(d) One physician.
(2) A licensed referee, judge, or timekeeper may officiate licensed mixed martial arts events or amateur events that are exempt from the act. A licensed boxing referee, judge, or timekeeper may officiate a USA Boxing sanctioned show.
(3) A referee or judge shall not officiate or accept an assignment to officiate when that assignment may impair the referee's or judge's independence of judgment or action in the performance of the referee's or judge's duties. Violation of this subrule renders the violator subject to the penalties set forth in section 48 of the act.
(4) Officials shall be paid by the licensed promoter.
(5) Where a square ring is used, a judge shall be seated midway between the ring posts of the ring, but not on the same side as another judge, and shall have an unimpaired view of the ring. Where a ring of more than 4 sides is used, the judges shall be as evenly disbursed as practical.
(6) A referee shall not be assigned to officiate more than 32 scheduled rounds in 1 day, except when substituting for another referee who is incapacitated.
(7) A referee shall not wear jewelry that might cause injury to the contestants. Glasses, if worn, shall be protective athletic glasses or goggles with plastic lenses and a secure elastic band around the back of the head.
(8) Referees, seconds working in the corners, department representatives, and physicians shall wear bio-protective gloves in the performance of their duties.
(9) An official shall not be under the influence of alcohol or drugs while performing his or her duties. The department may request an official to be tested for the presence of alcohol or drugs in the same manner that contestants are tested. Violation of this subrule or refusal to be tested shall subject the official to the penalties set forth in section 48 of the act.

(10) Ring officials shall avoid the appearance of partiality. A ring official shall not be licensed as a matchmaker, manager, second, or promoter. A ring official shall not own all or any portion of a contract of a mixed martial artist or a boxer.
(11) The department has sole authority for assignment of contest officials to an event.

R 339.217 Conduct during shows.
Rule 217. (1) Beginning 1 minute before the first round begins, only the referee, contestants, and the chief second may be in the ring. The referee shall clear the ring of all other individuals.
(2) Once a contest has begun, only referees, contestants, seconds, department representatives, physicians, and ring card persons shall be allowed in the ring.
(3) The referee may order that the ring and ringside area be cleared, at any time before, during, or after a contest, of any individual who is not authorized to be present in the ring or ringside area. The department representative may order the clearing of the ringside area.
(4) If any individual refuses to clear the ring or ringside area when ordered to do so by the referee or the department representative, disputes a decision by an official, or encourages spectators to object to a decision either verbally or physically, then the individual is engaged in disruptive conduct. The referee, on his or her own initiative or at the request of the department representative, may stop a contest at any time until the disruptive conduct ceases. If the individual involved in disruptive conduct is the manager or second of a contestant, then the referee may order points deducted from that contestant's score or disqualify the contestant. If the conduct occurred after the decision was announced, then the department representative shall file complaints against any licensed individual involved in the disruptive conduct. A licensee who engages in disruptive conduct shall be subject to the penalties set forth in section 48 of the act.
(5) The referee is the sole arbiter of a contest and is the only individual authorized to enter the ring at any time during competition and authorized to stop a contest. The referee may confer with the ringside physician in determining whether to continue or stop a contest.

R 339.219 Referees.
Rule 219. (1) The referee is the chief official and sole arbiter of a contest. The referee shall decide all questions arising in the ring during a contest that are not specifically addressed in these rules.
(2) The referee shall, before each contest begins, determine the name and location of the physician assigned to officiate at the contest and each contestant's chief second.
(3) At the beginning of each contest, the referee shall summon the contestants and their chief seconds together for final instructions. After receiving the instructions, the contestants shall retire to their respective corners.
(4) Where difficulties arise concerning language, the referee shall make sure that the contestant understands the final instructions through an interpreter and shall use suitable gestures and signs during the contest.
(5) With the exception of the contestants, the referee, and the physician in the performance of his or her duties, a person shall not enter the ring, including the apron of the ring, during the progress of a round.
(6) If a contestant's manager or second steps into the ring or onto the apron of the ring during a round, then the contest shall be halted and the referee may eject the manager or second from the ringside working area. If the manager or second steps into the ring or onto

the apron a second time during the contest, then the contest may be stopped and the decision awarded to the contestant's opponent due to disqualification.

(7) A referee shall inspect a contestant's gloves and the contestant's body to determine if a foreign substance has been applied.

(8) A referee shall not touch a contestant during a contest except when 1 or both contestants fail to obey the break command.

R 339.221 Rescinded.

R 339.223 Injuries and cuts; boxing.

Rule 223. (1) If an injury or cut is produced by a fair blow and because of the severity of the blow the contest cannot continue, then the injured contestant shall be declared the loser by technical knockout.

(2) If a contestant intentionally fouls his or her opponent and an injury or cut is produced, and if, due to the severity of the injury or cut, the contestant cannot continue, then the contestant who commits the foul shall be declared the loser by disqualification.

(3) If a contestant receives an intentional butt or foul and the contest can continue, then the referee shall penalize the contestant who commits the foul by deducting points based upon the severity of the offense. The referee shall notify the judges that the injury or cut has been produced by an intentional unfair blow. If in the subsequent rounds the same injury or cut becomes so severe that the contest has to be suspended, then the decision shall be awarded as follows:

(a) A technical draw if the injured contestant is behind on points or even on a majority of the scorecards.

(b) A technical decision to the injured contestant if the injured contestant is ahead on points on a majority of the scorecards.

(4) If a contestant injures himself or herself trying to foul his or her opponent, then the referee shall not take any action in the contestant's favor, and the injury shall be considered the result of a fair blow from the contestant's opponent.

(5) If a contestant is accidentally butted in a contest and can continue, then the referee shall stop the action to inform the judges and acknowledge the butt. If in subsequent rounds, as a result of legal blows, the accidental butt injury worsens, then the referee shall stop the contest and declare a technical decision. The winner shall be the contestant who is ahead on points on a majority of the scorecards. If a contestant is accidentally butted in a contest and an injury or cut is produced and, due to the severity of the injury or cut, the contestant cannot continue, then the referee shall rule as follows:

(a) If the contest is stopped before 2 of the scheduled rounds have been completed, call the contest a technical draw.

(b) If the contest is stopped after 2 of the scheduled rounds have been completed, declare that the winner is the contestant who has a lead in points on a majority of the scorecards before the round of injury.

(6) If, in the opinion of the referee, a contestant has suffered a dangerous cut or injury, then the referee may stop the contest temporarily to summon the physician. If the physician recommends that the contestant can continue, the referee may order the contest to be continued. If the physician recommends that the contestant should not continue, then the referee shall order the contest to be terminated.

(7) A referee may give a contestant who receives an accidental low blow not more than 5 minutes to recover. Contestants shall be directed to neutral corners. The seconds shall not

coach, administer water, or in any other way attend to their contestant. If the contestant cannot continue after 5 minutes he or she shall be declared the loser by technical knockout.

(8) If a contestant in a boxing contest is knocked down or given a standing mandatory 8 count or a combination of either occurs 3 times in 1 round, then the referee shall stop the contest and award a technical knockout to the opponent. The physician shall immediately enter the ring and examine the losing contestant.

(9) A physician shall immediately examine and administer aid to a contestant who is knocked out or injured, if, in the physician's professional judgment, there is a concern for the contestant's safety.

(10) If a contestant is knocked out or incapacitated, the referee or second shall not handle the contestant, except for the removal of a mouthpiece, unless directed by the physician to do so.

(11) A contestant shall not refuse to be examined by a physician.

(12) A contestant who has been knocked out shall not leave the site of the show until 1 hour has elapsed from the time of the examination or until released by the physician.

(13) The attending physician shall file a written report with the department on each contestant who has been knocked out or injured.

R 339.223a Injuries and cuts; mixed martial arts.

Rule 223a (1) If an injury sustained during competition as a result of a legal maneuver is severe enough to terminate a contest, then the injured contestant loses by technical knockout.

(2) If an injury sustained during competition as a result of an intentional foul is severe enough to terminate a contest, then the contestant causing the injury loses by disqualification.

(3) If an injury sustained during competition as a result of an intentional foul and the contest is allowed to continue, then the referee shall notify the scorekeeper to automatically deduct two points from the contestant who committed the foul.

(4) If an injury sustained during competition as a result of an intentional foul causes the injured contestant to be unable to continue at a subsequent point in the contest, then the injured contestant shall win by technical decision, if he or she is ahead on the score cards. If the injured contestant is even or behind on the scorecards at the time of stoppage, then the outcome of the contest shall be declared a technical draw.

(5) If a contestant injures himself or herself while attempting to foul his or her opponent, then the referee shall not take any action in his or her favor, and the injury shall be treated in the same manner as an injury produced by a fair blow.

(6) If an injury sustained during competition as a result of an accidental foul is severe enough for the referee to stop the contest immediately, then the contest shall result in a no contest if stopped before 2 rounds have been completed in a 3-round contest or if stopped before 3 rounds have been completed in a 5-round contest.

(7) If an injury sustained during competition as a result of an accidental foul is severe enough for the referee to stop the contest immediately, then the contest shall result in a technical decision awarded to the contestant who is ahead on the score cards at the time the contest is stopped only when the contest is stopped after 2 rounds of a 3-round contest, or 3 rounds of a 5-round contest have been completed.

(8) There shall be no scoring of an incomplete round. However, if the referee penalizes either contestant , then the appropriate points shall be deducted when the scorekeeper calculates the final score.

(9) A physician shall immediately examine and administer aid to a contestant who is knocked out or injured, if, in the physician's professional judgment, there is a concern for the contestant's safety.

(10) If a contestant is knocked out or incapacitated, then the referee or second shall not handle the contestant, except for the removal of a mouthpiece, unless directed by the physician to do so.

(11) A contestant shall not refuse to be examined by a physician.

(12) A contestant who has been knocked out shall not leave the site of the show until 1 hour has elapsed from the time of the examination or until released by the physician.

(13) The attending physician shall file a written report with the department on each contestant who has been knocked out or injured.

R 339.225 Knockouts.

Rule 225. (1) A contestant in a boxing contest who is knocked down shall take a minimum mandatory count of 8.

(2) If a contestant in a boxing contest is dazed by a blow and, in the referee's opinion, is unable to defend himself or herself, then the referee shall give a standing mandatory count of 8 or stop the contest. If on the count of 8 the contestant, in the referee's opinion, is unable to continue, then the referee may count him or her out on his or her feet or stop the contest on the count of 8.

(3) If there is a knockdown in a boxing contest, then the timekeeper shall immediately start the count loud enough to be heard by the referee, who, after waving the opponent to the farthest neutral corner, shall pick up the count from the timekeeper and proceed from there. The referee shall stop the count if the opponent fails to remain in the corner. The count shall be resumed when the opponent has returned to the corner.

(4) The timekeeper shall signal the count to the referee.

(5) If the contestant taking the count in a boxing contest is still down when the referee calls the count of 10, then the referee shall wave both arms to indicate that the contestant has been knocked out. The referee shall summon the physician and shall then raise the opponent's hand as the winner. The referee's count is the official count.

(6) If at the end of a round a contestant in a boxing contest is down and the referee is in the process of counting, then the gong indicating the end of the round shall not be sounded, except for the last round. The gong shall only be sounded when the referee gives the command to box indicating the continuation of the contest.

(7) In the final round, the timekeeper's gong shall terminate the ~~fight~~ contest.

(8) A referee shall award a technical knockout decision to the opponent if a contestant is unable or refuses to continue when the gong sounds to begin the next round. The decision shall be awarded in the round started by the gong.

(9) The referee and timekeeper shall resume their count at the point it was suspended if a contestant in a boxing contest rises before the count of 10 is reached and falls down immediately without being struck.

(10) If both contestants in a boxing contest go down at the same time, then counting shall continue as long as 1 of them is still down or until the referee or the ringside physician determines that 1 or both of the contestants need immediate medical attention. If both contestants remain down until the count of 10, then the contest shall stop and the decision shall be scored as a double knockout.

R 339.226 Types of contest results for mixed martial arts events.

Rule 226. The following are the types of contest results for mixed martial arts events:
(a) Submission by either of the following:
(i) Tap out: When a contestant physically uses his hand to indicate that he or she no longer wishes to continue.
(ii) Verbal tap out: When a contestant verbally announces to the referee that he or she does not wish to continue.
(b) Technical knockout by either of the following:
(i) Referee stops the contest.
(ii) When an injury as a result of a legal maneuver is severe enough to terminate a contest.
(c) Knockout by failure to rise from the canvas.
(d) Decision via score cards includes any of the following:
(i) Unanimous decision: When all 3 judges score the contest for the same contestant.
(ii) Split decision: When 2 judges score the contest for 1 contestant and 1 judge scores for the opponent.
(iii) Majority decision: When 2 judges score the contest for same contestant and only 1 judge scores a draw.
(e) Draw includes any of the following:
(i) Unanimous Draw: When all 3 judges score the contest a draw.
(ii) Majority Draw: When 2 judges score the contest a draw.
(iii) Split Draw: When all 3 judges score differently and the score total results in a draw.
(f) Disqualification: When an injury sustained during competition as a result of an intentional foul is severe enough to terminate the contest.
(g) Forfeit: When a contestant fails to begin competition or prematurely ends the contest for reasons other than injury or by indicating a tap out.
(h) Technical draw: When an injury sustained during competition as a result of an intentional foul causes the injured contestant to be unable to continue and the injured contestant is even or behind on the score cards at the time of stoppage.
(i) Technical decision: When the contest is prematurely stopped due to injury and a contestant is leading on the score cards.
(j) No contest. When a contest is prematurely stopped due to accidental injury and a sufficient number of rounds have not been completed to render a decision via the score cards.

R 339.229 Judging; boxing.
Rule 229. (1) Officials who score a contest shall use the 10-point must system.
(2) For the purpose of this rule, the "10-point must system" means that the winner of each round receives 10 points as determined by clean hitting, effective aggressiveness, defense, and ring generalship. The loser of the round shall receive less than 10 points. If the round is even, each contestant receives 10 points. Fractions of points shall not be given.
(3) Officials who score the contest shall mark their cards in ink or in indelible pencil at the end of each round.
(4) Officials who score the contest shall sign their scorecards.
(5) Except as provided in subrule (6) of this rule, at the conclusion of each contest, the judges shall total the points for each contestant and indicate the winner by writing the winner's name at the designated area on the scorecard and circle the same name where it appears on the top of the scorecard.
(6) If a contest is scored on individual score sheets for each round, the referee shall, at the end of a round, collect the score sheet for the round from each judge and shall give the score sheets to the department representative for computation.

(7) Referees and judges shall be discreet at all times and shall not discuss their decisions with anyone during a show.

(8) A decision that is rendered at the termination of a boxing contest shall not be changed without a hearing, unless it is determined that a computation of the scorecards shows a clerical or mathematical error giving the decision to the wrong contestant. If such an error is found, the decision may be changed by the department representative.

(9) The referee shall collect the score sheets from the judges and give them to the department representative for checking. After the sheets have been checked, the referee shall collect them and give them to the announcer, who shall announce the decision to the spectators.

(10) After a contest, the department representative shall collect and maintain the scorecards.

(11) If a referee becomes incapacitated and is unable to complete a boxing contest, then a time-out shall be called and the other referee who is assigned to the show shall assume the duties of the referee.

(12) If a judge becomes incapacitated and is unable to complete the scoring of a contest, then a time-out shall be called and an alternate licensed judge shall immediately be assigned to score the contest from the point at which he or she assumed the duties of a judge. If the incapacity of a judge is not noticed during a round, the referee shall score that round and the substitute judge shall score all subsequent rounds.

R 339.230 Judging; mixed martial arts.

Rule 230. (1) All mixed martial arts contests shall be evaluated by 3 judges.

(2) The 10-Point Must Scoring System will be the standard system of scoring a contest. Under the 10-Point Must Scoring System, 10 points must be awarded to the winner of the round and 9 points or fewer must be awarded to the loser, except for a rare even round, which is scored (10-10).

(3) Judges shall evaluate mixed martial arts techniques, such as effective striking, effective grappling, control of the ring, effective aggressiveness, and defense.

(4) Evaluation shall be made in the order in which the techniques appear in subrule (2) of this rule, giving the most weight in scoring to effective striking, effective grappling, control of the ring, effective aggressiveness, and defense.

(5) Effective striking is judged by determining the total number of legal heavy strikes landed by a contestant.

(6) Effective grappling is judged by considering the amount of successful executions of a legal takedown and reversals. All of the following are examples of factors to consider:

(a) Take downs from standing position to mount position.

(b) Passing the guard to mount position.

(c) Bottom position ring using an active, threatening guard.

(7) Ring area control is judged by determining who is dictating the pace, location and position of the contest. All of the following are examples of factors to consider:

(a) Countering a grappler's attempt at takedown by remaining standing and legally striking,

(b) Taking down an opponent to force a ground contest.

(c) Creating threatening submission attempts.

(d) Passing the guard to achieve mount.

(e) Creating striking opportunities.

(8) Effective aggressiveness means moving forward and landing a legal strike.

(9) Effective defense means avoiding being struck, taken down, or reversed while countering with offensive attacks.

(10) The following objective scoring criteria shall be used by the judges when scoring a round:

(a) A round is to be scored as a 10-10 round when both contestants appear to be competing evenly and neither contestant shows clear dominance in a round.

(b) A round is to be scored as a 10-9 round when a contestant wins by a close margin, landing the greater number of effective legal strikes, grappling, and other maneuvers.

(c) A round is to be scored as a 10-8 round when a contestant overwhelmingly dominates by striking or grappling in a round.

(d) A round is to be scored as a 10-7 round when a contestant totally dominates by striking or grappling in a round.

(11) Judges shall use a sliding scale and recognize the length of time the contestants are either standing or on the ground, as follows:

(a) If the mixed martial arts contestant spent a majority of a round on the canvas, then the following apply:

(i) Effective grappling is weighed first.

(ii) Effective striking is weighed second.

(b) If the mixed martial arts contestant spent a majority of a round standing, then the following apply:

(i) Effective striking is weighed first.

(ii) Effective grappling is weighed second.

(c) If a round ends with a relatively even amount of standing and canvas competition, striking and grappling are weighed equally.

(12) Officials who score the contest shall mark their cards in ink or in indelible pencil at the end of each round.

(13) Officials who score the contest shall sign their scorecards.

(14) Except as provided in subrule (15) of this rule, at the conclusion of each contest, the judges shall total the points for each contestant and indicate the winner by writing the winner's name at the designated area on the scorecard and circle the same name where it appears on the top of the scorecard.

(15) If a contest is scored on individual score sheets for each round, the referee shall, at the end of a round, collect the score sheet for the round from each judge and shall give the score sheets to the department representative for computation.

(16) Referees and judges shall be discreet at all times and shall not discuss their decisions with anyone during a show.

(17) A decision that is rendered at the termination of a mixed martial arts contest shall not be changed without a hearing, unless it is determined that a computation of the scorecards shows a clerical or mathematical error giving the decision to the wrong contestant. If such an error is found, the decision may be changed by the department representative.

(18) The referee shall collect the score sheets from the judges and give them to the department representative for checking. After the sheets have been checked, the referee shall collect them and give them to the announcer, who shall announce the decision to the spectators.

(19) After a contest, the department representative shall collect and maintain the scorecards.

(20) If a referee becomes incapacitated and is unable to complete a mixed martial arts contest, then a time-out shall be called and the other referee who is assigned to the show shall assume the duties of the referee.

(21) If a judge becomes incapacitated and is unable to complete the scoring of a mixed martial arts contest, then a time-out shall be called and an alternate licensed judge shall immediately be assigned to score the contest from the point at which he or she assumed the duties of a judge. If the incapacity of a judge is not noticed during a round, the referee shall score that round and the substitute judge shall score all subsequent rounds.

R 339.231 Fouls; boxing.

Rule 231. A referee of boxing contest may disqualify or penalize a boxing contestant by deducting points from a round for any of the following fouls:

(a) Holding an opponent or deliberately maintaining a clinch.
(b) Hitting with the head, shoulder, elbow, wrist, inside or butt of the hand, or the knee.
(c) Hitting or gouging with an open glove.
(d) Wrestling, spinning, or roughing at the ropes.
(e) Gripping at the ropes when avoiding or throwing punches.
(f) Intentionally striking at the part of the body that is over the kidneys.
(g) Using a rabbit punch or hitting an opponent at the base of the opponent's skull.
(h) Hitting on the break or after the gong has sounded.
(i) Hitting an opponent who is down or rising after being down.
(j) Hitting below the beltline.
(k) Holding an opponent with 1 hand and hitting with the other.
(l) Purposely going down without being hit or to avoid a blow.
(m) Using abusive language in the ring.
(n) Unsportsmanlike conduct on the part of the contestant or a second whether before, during, or after a round.
(o) Intentionally spitting out a mouthpiece.
(p) Any backhand blow.
(q) Stalling and faking.

R 339.232 Fouls-mixed martial arts.

Rule 232. A referee of a mixed martial arts contest may disqualify or penalize a contestant by deducting points from a round for any of the following fouls:

(a) Holding or grabbing the fence.
(b) Holding opponent’s shorts or gloves.
(c) The presence of more than 1 second on the ring area perimeter.
(d) Butting with the head.
(e) Eye gouging of any kind.
(f) Biting or spitting at an opponent.
(g) Hair pulling.
(h) Fish hooking.
(i) Groin attacks of any kind.
(j) Intentionally placing a finger in any opponent’s orifice or into any cut or laceration on an opponent.
(k) Downward pointing of elbow strikes.
(l) Small joint manipulation.
(m) Strikes to the spine or back of the head.

(n) Heel kicks to the kidney.
(o) Throat strikes of any kind, including but not limited to, grabbing the trachea.
(p) Clawing, pinching, twisting the flesh or grabbing the clavicle.
(q) Kicking the head of a grounded contestant.
(r) Kneeing the head of a grounded contestant.
(s) Stomping of a grounded contestant.
(t) The use of abusive language in competing area.
(u) Any unsportsmanlike conduct that causes an injury to opponent.
(v) Attacking an opponent on or during the break.
(w) Attacking an opponent who is under the referee's care at the time.
(x) Timidity, for example, avoiding contact, consistent dropping of mouthpiece, or faking an injury.
(y) Interference from a mixed martial artists second.
(z) Throwing an opponent out of the ring.
(aa) Flagrant disregard of the referee's instructions.
(bb) Spiking an opponent to the canvas on his or her head or neck.
(cc) Attacking an opponent after the bell has sounded the end of the round.

R 339.233 Penalties for fouling.
Rule 233. (1) A referee who penalizes a contestant under these rules shall notify the judges at the time of the infraction to deduct specified points from their scorecards.
(2) A contestant committing a deliberate foul, in addition to the deduction of points, may be subject to the penalties set forth in chapter 4 of the act.
(3) A judge shall not deduct points pursuant to R 339.231 and R 339.232 unless instructed to do so by the referee.
(4) A complaint may be filed by the department against a contestant disqualified on a foul.

R 339.234 Pre-licensure physical examination for mixed martial artists; physician certification required.
Rule 234. (1) Before a license can be issued or renewed, a mixed martial artist shall undergo a thorough medical examination by a physician or physicians to establish his or her physical fitness for competition.
(2) An examination shall be made not earlier than 30 days, but not later than 1 day before submitting the application, except for the Hepatitis B and C and HIV tests, which shall be conducted not earlier than 180 days before participation in each scheduled competition. The testing for complete blood count, bleeding, and coagulation time shall only be required for initial licensure, unless requested by the department as a condition for renewal.
(3) In addition to the examination required by subrules (1) and (2) of this rule, the department may order additional examinations of a mixed martial artist for determining his or her continued fitness and qualification to engage in a mixed martial arts contest.
(4) No mixed martial artist shall be granted a license unless a physician has certified the mixed martial artist's fitness to engage in a mixed martial arts contest and as approved by the department.

R 339.234a Medical examination defined.
Rule 234a. A medical examination required in R 339.234 shall consist of at least all of the following:
(a) A CT or MRI Brain Scan, without contrast, within the last 3 years.

(b) An electrocardiogram.
(c) Opthalmological dilation.
(d) An annual gynecological and breast exam for women.
(e) A comprehensive history and physical examination.
(f) A complete blood count for bleeding and coagulation time for initial licensure.
(g) A Hepatitis B and C and HIV test conducted not earlier than 180 days before participation in each scheduled competition.
(h) A urinalysis.

R 339.235 Pre-contest physical examination.
Rule 235. (1) Not more than 8 hours before a show a physician, licensed physician's assistant, or certified nurse practitioner shall certify that each contestant is in proper physical condition to participate in the show by taking a detailed medical history and examining all of the following:
(a) Eyes.
(b) Teeth.
(c) Jaw.
(d) Neck.
(e) Chest.
(f) Ears.
(g) Nose.
(h) Throat.
(i) Skin.
(j) Scalp.
(k) Head.
(l) Abdomen.
(m) Cardiopulmonary status.
(n) Neurological, muscular, and skeletal systems.
(o) Abdomen and breasts, if a female contestant.
(p) Pelvis.
(2) The physician, licensed physician's assistant, certified nurse practitioner or the department representative may also test for the presence of alcohol or drugs in the body.
(3) The physician, licensed physician's assistant, or certified nurse practitioner shall certify, in writing, those contestants who are in good physical condition to compete.
(4) Before a contest, a female contestant shall provide the department with the results of a pregnancy test performed on the contestant within the previous 7 days. If the results of the pregnancy test are positive, the contestant shall not compete and the department representative shall be notified.
(5) Before a contest, a contestant shall provide the department with the results of HIV and Hepatitis B and C tests performed on the contestant within the previous 180 days. If the results of the tests are positive, not provided, or cannot be verified, then the contestant shall not compete.
(6) A contest shall not begin until a physician and an attended ambulance are present. The physician shall not leave until the decision in the final contest has been announced and all injured contestants have been attended to.
(7) The physician shall sit near the steps into the ring and the contest shall not begin until the physician is seated. The physician shall remain at that location for the entire contest

R 339.235a Post-contest physical examination.
Rule 235a (1) Each contestant shall be given a physical examination by a physician appointed by the department immediately following the contest.
(2) The physical examination shall include all of the following:
(a) Eyes.
(b) Teeth.
(c) Jaw.
(d) Neck.
(e) Chest.
(f) Ears.
(g) Nose.
(h) Throat.
(i) Skin.
(j) Scalp.
(k) Head.
(l) Abdomen.
(m) Cardiopulmonary status.
(n) Neurological, muscular, and skeletal systems.
(o) Abdomen and breasts, if a female contestant.
(p) Pelvis.
(3) Any contestant refusing to submit a post-contest physical examination shall be immediately suspended for an indefinite period.

R 339.237 Timekeepers.
Rule 237. (1) For a boxing contest, a timekeeper shall indicate the beginning and end of each round by gong or other audible device.
(2) For a mixed martial arts contest, a timekeeper shall begin the start of the clock for each round, as initiated by the referee, and shall indicate the end of each round by gong or other audible device.
(3) A timekeeper shall possess a whistle and a stopwatch.
(4) Ten seconds before the beginning of each round, the timekeeper shall warn the contestants' seconds of the time by audible device.
(5) If a contest terminates before the scheduled limit of rounds, the timekeeper shall inform the announcer of the exact duration of the contest.

R 339.243 Identification; passports.
Rule 243. (1) Each contestant shall provide 2 pieces of identification, 1 of which shall have a photo of the contestant, to the department representative before participation in a contest.
(2) A contestant shall present a passport issued by the department as 1 of the pieces of identification required under subrule (1) of this rule. The passport shall be issued by the department at the time the contestant receives his or her original license.
(3) The passport shall contain all of the following information:
(a) The contestant’s federal or national I.D. number issued by an association recognized by the department.
(b) The contestant’s license number.
(c) The contestant’s name and address.
(d) A photograph of the contestant.

(4) Unless otherwise approved by a department representative, a contestant shall not compete if his or her passport is incomplete or if the contestant
fails to present the passport to the department representative before the contest.

R 339.245 Dress and protective equipment for boxing contestants.
Rule 245. (1) Contestants in a boxing contest shall wear all of the following:
(a) Trunks that are belted at the contestant's waistline. For the purposes of this subrule, the waistline shall be defined as an imaginary horizontal line drawn through the navel to the top of the hips. Trunks shall not have any buckles or other ornaments on them that might injure a contestant or referee.
(b) A foul-proof protector for male contestants, and a pelvic area protector and breast protector for female contestants.
(c) Shoes which are made of soft material and which do not have spikes, cleats, or heels.
(d) A fitted mouthpiece, which shall be examined by the ringside physician.
(e) Gloves meeting the requirements of R 339.206.
(2) In addition to the clothing required under subrule (1) of this rule, a female contestant shall wear a body shirt or blouse that does not have buttons, buckles, or ornaments.
(3) A boxing contestant shall not wear corrective lenses into the ring.
(4) A contestant shall not wear jewelry or piercing accessories during a boxing competition.

Rule 339.246 Dress and protective equipment for mixed martial arts contestants.
Rule 246. (1) Each mixed martial arts contestant shall wear mixed martial arts shorts, biking shorts, or kickboxing shorts.
(2) Each mixed martial arts contestant shall wear a fitted mouthpiece, which shall be examined by the ringside physician.
(3) Gis or shirts are prohibited during a mixed martial arts competition, except for women who shall wear a chest protector and body shirt.
(4) Shoes are prohibited during a mixed martial arts competition.
(5) Male mixed martial arts contestants shall wear a groin protector.
(6) Female mixed martial arts contestants may wear a groin protector.
(7) A contestant shall not wear jewelry or piercing accessories during a mixed martial arts competition.

Rule 339.246a Appearance.
Rule 246a. Hair shall be trimmed or tied back so that it does not interfere with the vision of either contestant or cover any part of a contestant’s face.

R 339.249 Procedure after knockouts or sustained damaging head blows.
Rule 249. (1) The contestant’s manager and seconds shall assure that the contestant complies with this rule and R 339.251. Violations of this rule and/or R 339.251 shall be grounds for disciplinary action under chapter 4 of the act against the contestant, the contestant’s manager, or the contestant’s seconds.
(2) A contestant who has lost by a technical knockout shall not compete again for a period of 30 calendar days.
(3) The ringside physician shall examine a contestant who has been knocked out in a contest or a contestant whose competition has been stopped by the referee because the

contestant received hard blows to the head that made him or her defenseless or incapable of continuing immediately after the knockout or stoppage.

(4) The ringside physician may refer the contestant to a hospital or medical facility for post-contest neurological evaluations to be performed on the contestant immediately after the contestant leaves the location of the show. If such referrals are made, and the results of the examinations are not received by the department within 24 hours of their completion, then the contestant shall be ineligible to compete until such reports are received and until certification is given by a physician that the contestant is fit to compete after an examination.

R 339.251 Eligibility to compete.

Rule 251(1) All medical reports that are submitted to the department relative to a physical examination or the condition of a contestant shall be confidential and shall be open to examination only by the department, the commission, and the licensed contestant upon the contestant's request to examine the records or upon the order of a court of competent jurisdiction.

(2) A contestant who has been knocked out or who received excessive hard blows to the head that made him or her defenseless or incapable of continuing shall be ineligible to compete for a period of not less than 60 days.

(3) A contestant who has lost by a technical knockout shall be suspended for a minimum 30-day period.

(4) A contestant who has lost 6 consecutive contests shall be ineligible to compete again until the department, after reviewing the results of the 6 contests, approves the contestant for further participation and the contestant has submitted to a physical examination by a physician who has certified that the contestant is fit to compete.

(5) A contestant who has had cardiac surgery shall be ineligible to compete until he or she has submitted to a medical examination by a cardiovascular surgeon who has certified his or her fitness to compete.

(6) A contestant who has suffered a detached retina shall be ineligible to compete until he or she has submitted to a medical examination by an ophthalmologist who has certified his or her fitness to compete.

(7) A contestant or applicant for licensure who is prohibited from competing in other states or jurisdictions due to medical reasons may be prohibited from competing in this state in accordance with these rules. In considering prohibiting a licensee or applicant for licensure from competing in this state, the licensee's or applicant's entire professional record shall be considered, regardless of the state or country in which his or her contests occurred.

(8) A contestant or his or her manager shall report any change in a medical condition that may affect the contestant's ability to compete safely. The department may, at any time, require current medical information on any contestant.

R 339.253 Waiting period.

Rule 253. Except for elimination contests not subject to the act, 7 days shall elapse before a contestant who has competed anywhere in a contest may participate in another contest.

R 339.255 Boxing championships and international boxing contests; adoption of rules by reference.

Rule 255. (1) For a championship boxing contest or an international boxing contest that is held in this state, the department adopts by reference in these rules Association of Boxing Commissions (A.B.C.) Regulatory Guidelines, effective July 21, 2004, as applicable to the

specific championship or international contest and the fees paid to officials for such championships and contests. Copies of the adopted matter are available for inspection at the office of the Michigan Unarmed Combat Commission 2501 Woodlake Circle, Okemos, MI 48864, mailing address, P.O. Box 30018, Lansing MI 48909. Copies of the rules may be obtained from The Association of Boxing Commissions (A.B.C.), world-wide web, http:/www.abcboxing.com, by linking to "documents," at no charge.

R 339.257 Managers.

Rule 257. (1) A manager shall not sign a contract for the appearance of a contestant if the manager does not have the contestant under contract.

(2) A licensed manager may act as a second without a second's license; however, a manager shall not hold a license as a referee, judge, timekeeper, or matchmaker.

R 339.259 Matchmakers and promoters; liability for lack of judgment in arranging matches; contract restrictions.

Rule 259. (1) The promoter and matchmaker shall be responsible for a match in which 1 of the contestants is disproportionately outclassed. Persistent lack of judgment in arranging matches shall be sufficient grounds for disciplinary action under chapter 4 of the act.

(2) A promoter shall not own a contract or a portion of a contract of, or receive proceeds from a contract with, any contestant who is competing in 1 of the promoter's productions. A matchmaker shall not own a contract or a portion of a contract of, or receive proceeds from a contract with, any contestant for whom the matchmaker arranges matches.

(3) A matchmaker may be licensed as a promoter. A promoter may be licensed as a matchmaker. However, neither a promoter nor a matchmaker shall be licensed as a referee, timekeeper, judge, boxer, mixed martial artist, or manager.

R 339.261 Filing of documents by promoter; publicizing shows; contract requirements; promoter responsible for paying insurance deductible.

Rule 261. (1) A promoter shall file with the department a written request to hold a show not less than 30 days, or not less than 7 days for televised shows, before the date of the proposed show. The request shall indicate if the show is to be televised. The promoter shall designate a matchmaker who shall be licensed by the department.

(2) Not later than 24 hours following the contests, a promoter shall file with the department true copies of the promoter's contracts with the contestants for all contests.

(3) A matchmaker shall be responsible for verifying the identity, ring record, eligibility, and suspensions of each contestant. A promoter shall be responsible for the accuracy of the names and records of each of the participating contestants in all publicity or promotional material.

(4) A contestant shall use his or her legal name to sign a contract; however, a contestant who is licensed under another name may sign the contract using his or her licensed name if the contestant’s legal name appears in the body of the contract as the name under which the contestant is otherwise known.

(5) All contracts shall be between a promoter and a contestant. There shall not be a contract between the promoter and a manager. However, a contract may be signed by a contestant’s manager on behalf of the contestant. If a contestant does not have a licensed manager, then the contestant shall sign the contract.

(6) The contract that is filed with the department shall embody all of the agreements between the parties. Secret contracts which contradict the terms of the contracts that are filed with the department are prohibited.

(7) The contract between a promoter and a contestant shall be for the use of the contestant's skills in a contest and shall not require the contestant to sell tickets in order to be paid for his or her services.

(8) If the insurance provided by the promoter to meet the requirements of section 55 of the act has a requirement for a deductible amount to be paid, then the promoter shall be responsible for paying the deductible amount.

R 339.265 Compensation.

Rule 265. Each official assigned to officiate a professional boxing or mixed martial arts contest regulated by the department shall be paid in accordance with the fees listed in table 1 as follows:

Gross Purses Contracted	Referees	Judges	Timekeepers	Physicians	Physician's Assistant	Nurse Practitioner
$0.00 to $7,500	$100	$75	$50	$150	$100	$100
$7,501 to $20,000	$150	$100	$75	$200	$100	$100
$20,001 to $50,000	$250	$150	$100	$250	$100	$100
$50,001 to $100,000	$350	$250	$150	$300	$100	$100
Over $100,000	$700	$450	$200	$400	$100	$100

R 339.267 Elimination tournaments.

Rule 267. An elimination tournament is a tournament in which 2 contestants box one another, the loser is eliminated from the tournament, and the tournament continues with winners from the various contests competing until only 1 contestant remain undefeated in the weight division. An elimination tournament shall be in compliance with all of the rules pertaining to professional boxing, except as provided in chapter 5 of the act and R 339.253.

R 339.269 Drug testing.

Rule 269. (1) The department, the department representative, or the ringside physician may request that a contestant take a test or submit to an examination designed to measure the presence of alcohol or drugs before or immediately following a contest. The collection of specimens shall take place at the venue or a facility acceptable to the department. The promoter shall be responsible for the cost of testing contestants, which shall be completed at a laboratory facility acceptable to the department.

(2) The department, the department representative, or the ringside physician may request that an assigned official take a test or submit to an examination designed to measure the presence of alcohol or drugs before or immediately following a contest. The collection of specimens shall take place at the venue or a facility acceptable to the department. An assigned official shall be responsible for the cost of his or her examination which shall be completed at a laboratory facility acceptable to the department.

(3) If such a test or examination results in a finding of the presence of a drug or alcohol or if the contestant or official refuses to submit to a test or refuses or is unable to provide a sample of body fluids for a test, then a complaint shall be filed under the procedures of chapter 4 of the act. If a determination is made that the contestant or official is subject to disciplinary action, then the commission may impose, at a minimum, the following penalties under chapter 4 of the act:

(a) For a first violation, suspension for 90 days.

(b) For a second violation, a 1-year suspension.

(c) For a third violation, revocation of licensure.

(4) At the completion of a suspension ordered by the commission under subrule (3) (a) and (b) of this rule based on a finding of the presence of drugs, a contestant or official may be required to submit to a test for the presence of drugs. The results of the test shall be negative for all drugs tested before a contestant is allowed to compete again or an official is assigned to officiate again.

(5) A contestant who is disciplined under this rule and who was the winner of a contest shall be disqualified and the decision of the contest shall be changed to "no contest."

(6)The results of a contest shall remain unchanged if a contestant who is disciplined under this rule was the loser of the contest.

(7) Contestants who are prohibited, restrained, disqualified, or are otherwise ineligible to compete in other states or jurisdictions due to disciplinary action that involves the use of drugs shall not compete in this state until such time as the period of prohibition, restraint, disqualification, or ineligibility is completed or removed. However, a contestant with a previous suspension in any state or jurisdiction may be required to take and pass a drug test before being allowed to compete in this state.

R 339.271 Suspension notices.

Rule 271. (1) A contestant who is suspended shall be placed on the suspension list of the sanctioned record-keeping organization and notice shall also be placed on the department's website.

(2) The department , upon placing the contestant on the suspension list under subrule (1) of this rule, shall immediately mail a written suspension notice to the contestant at his or her last known address, specifying the nature of the suspension, the reason, and the length of the suspension, where known.

PART 3. FEES

R 339.303 License fees.

Rule 303. Fees for a person licensed or seeking licensure as a professional boxer or mixed martial artist, judge, manager, referee, timekeeper, second, promoter, matchmaker, physician, physician's assistant, or nurse practitioner are as follows:

(a) Application processing fees:

(i) Professional boxer license and passport $45.00

(ii) Mixed martial artist license and passport $45.00

(iii) Boxing or mixed martial arts Promoter $500.00

(iv) Judge, Referee, Timekeeper,
Manager, Matchmaker, Second, Physician,
Physician's Assistant, Nurse Practitioner: $30.00

(b) License fee, per year:

(i) Professional boxer or mixed martial artist $25.00
(ii) Judge $70.00
(iii) Referee $150.00
(iv) Timekeeper $70.00
(v) Manager $125.00
(vi) Matchmaker $150.00
(vii) Promoter $250.00
(viii) Second $30.00
(ix) Physician $150.00
(x) Physicians Assistant / Nurse Practitioner $70.00
(c) Duplicate passport $30.00

PART 4.

R 339.403 Reinstatement.

Rule 403. A person who seeks reinstatement of a license shall file an application on a form provided by the department, pay the appropriate application processing fee, and shall file a petition with the department and the commission stating reasons for reinstatement and including evidence that the person can and is likely to serve the public with competence and in conformance will all other requirements prescribed by law, rule, or an order of the commission. Upon consultation with the commission, the department shall grant or deny the application for reinstatement.

ADMINISTRATIVE RULES

SOAHR 2008-010

DEPARTMENT OF COMMUNITY HEALTH

BOARD OF PHYSICAL THERAPY

GENERAL RULES

Filed with the Secretary of State on May 15, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the department of community health by sections 16145(3) and 17801 of 1978 PA 368, MCL 333.16145(3) and 333.17801 and Executive Order Nos. 1996-1, 1996-2, and 2003-1, MCL 330.3101, 445.2001 and 445.2011)

R 338.7108 of the Michigan Administrative Code is rescinded; R 338.7101, R 338.7102, R 338.7103, R 338.7104, R 338.7105, R 338.7107 and R 338.7110 are amended; and R 338.7107a, R 338.7107b, R 338.7111, R 338.7112, R 338.7113, and R 338.7114 are added as follows:

R 338.7101 Definitions.
Rule 1. As used in these rules:
(a) "Board" means the board of physical therapy.
(b) "Code" means 1978 PA 368, MCL 333.1101.
(c) "Intervention" means the purposeful and skillful interaction of the physical therapist with the patient or client and, if appropriate, with other individuals involved in the care of the patient or client, using various physical therapy methods and techniques to produce changes that are consistent with the diagnosis and prognosis.
(d) "Patient or client of record" means a patient or client who has been examined and diagnosed by a licensed individual who is authorized to prescribe physical therapy under section 17820(1) of the code and who has been referred to a licensed physical therapist for examination and treatment.

R 338.7102 Prescription.
Rule 2. (1) As used in these rules, a prescription is a written or electronic order for physical therapy. A prescription shall include all of the following:
(a) The name of the patient.
(b) The patient's medical diagnosis.
(c) The signature of either an individual who is licensed and authorized to prescribe physical therapy in Michigan or an individual who holds the equivalent license issued by another state, as provided in section 17820(1) of the code .

(d) The date that the prescription was written.
(2) A prescription is valid for 90 days from the date that the prescription was written unless the termination date is otherwise stated by the authorized licensee on the prescription.

R 338.7103 Factors in assessing fines.
Rule 3. When a fine has been designated as an available sanction for a violation of the public health code under section 16226 of the code, the board may take into consideration the following factors in assessing a fine:
(a) The extent to which the licensee obtained financial benefit.
(b) The willfulness of the conduct.
(c) The public harm, actual or potential.
(d) The cost incurred in investigating and proceeding against the licensee.

R 338.7104 Program accreditation standards; adoption of standards by reference.
Rule 4. (1) The board approves and adopts by reference in these rules the standards and evaluative criteria for accreditation of physical therapy educational programs set forth by the commission on accreditation in physical therapy education in the document entitled "Evaluative Criteria for Accreditation of Education Programs for the Preparation of Physical Therapists", January 1, 2006. Copies of the evaluative criteria are available at no cost from the Commission on Accreditation in Physical Therapy Education, 1111 North Fairfax St., Alexandria, VA 22314, at the Commission's website at HUhttp://www.apta.orgUH. Copies of the evaluative criteria also are available for inspection and distribution at no cost from the Board of Physical Therapy, Bureau of Health Professions, Department of Community Health, 611 West Ottawa, P.O. Box 30670, Lansing, MI 48909.
(2) The board shall consider any educational program for the physical therapist that is accredited by the commission on accreditation in physical therapy education as a physical therapist educational program approved by the board.

R 338.7105 Licensure by examination; requirements.
Rule 5. An applicant for a physical therapist license by examination shall submit a completed application on a form provided by the department, together with the requisite fee. In addition to meeting the requirements of the code and these administrative rules, an applicant shall meet both of the following requirements:
(a) The applicant shall establish that he or she meets the eligibility requirements to sit for the examinations set forth in R 338.7107a and R 338.7107b.
(b) The applicant shall pass a physical therapist licensure examination that is approved by the board and the examination on laws and rules related to the practice of physical therapy in Michigan which is administered by the department.

R 338.7107 Examinations; adoption and approval; passing score.
Rule 7. (1) The board approves and adopts the national physical therapy examination that was developed and administered by the federation of state boards of physical therapy. A passing score on the physical therapist licensure examination developed for the federation of state boards of physical therapy shall be a converted score of not less than 75.
(2) The board approves the examination on laws and rules related to the practice of physical therapy administered by the department. The passing score on the law and rules examination shall be a converted score of not less than 75.

R 338.7107a Examination; eligibility.
Rule 7a. (1) To ensure eligibility for examination, an applicant shall submit a completed application form provided by the department together with the requisite fee. To be eligible for examination, an applicant shall either have graduated from an accredited physical therapy program that meets the standards adopted by the board in R 338.7104 or comply with the requirements of R 338.7107b.
(2) An applicant who fails to achieve passing scores on both of the examinations required in R 338.7105(b) may retake either or both of the failed examinations without limitation.

R 338.7107b Foreign physical therapy graduates; examination; eligibility.
Rule 7b. To ensure eligibility for examination, an applicant who graduated from a non-accredited postsecondary institution shall submit a completed application form provided by the department together with the requisite fee. To be eligible for examination, an applicant shall do all of the following:
(a) Verify that he or she has completed a physical therapist educational program that is substantially equivalent to a physical therapist program that is accredited by the commission on accreditation in physical therapy education (capte), as provided in R 338.7104. Evidence of having completed a substantially equivalent physical therapist educational program shall include an evaluation of the applicant's foreign education by the foreign credentialing commission on physical therapy (fccpt), 124 West Street South, Alexandria, VA 22314-2825, HUhttp://www.fccpt.orgUH, or a substantially equivalent evaluation that utilizes the fccpt course work evaluation tool.
(b) Demonstrate a working knowledge of the English language, if an applicant's physical therapist educational program was taught in a language other than English. To demonstrate a working knowledge of the English language, an applicant shall establish either of the following:
(i) That he or she has obtained a score of not less than 550 on the test of English as a foreign language (toefl) administered by the educational testing service and obtained a score of not less than 50 on the test of spoken English administered by the educational testing service.
(ii) That he or she has obtained a total score of not less than 89 on the test of English as a foreign language internet-based test (toefl ibt) administered by the educational testing service and obtained the following section scores:
(A) Not less than 21 on the reading section.
(B) Not less than 18 on the listening section.
(C) Not less than 26 on the speaking section.
(D) Not less than 24 on the writing section.

R 338.7108 Rescinded.

R 338.7110 Licensure by endorsement; requirements.
Rule 10. An applicant for a physical therapist license by endorsement shall submit a completed application on a form provided by the department, together with the requisite fee. In addition to meeting the requirements of the code and the administrative rules promulgated under the code, an applicant who satisfies the following requirements of this rule, as applicable, and achieved a minimum scaled score of 75 on the examination of Michigan laws and rules governing the practice of physical therapy in Michigan shall be deemed to meet the requirements of section 16186(a) and (d) of the code:

(a) If an applicant was first licensed in another jurisdiction recognized by the federation of state boards of physical therapy and engaged in the practice of physical therapy for 5 years or more before the date of filing an application for a Michigan physical therapist license, then the applicant shall comply with both of the following:
(i) Be verified, on a form supplied by the department, by the licensing agency of any state or territory of the United States in which the applicant holds a current license or ever held a license as a physical therapist, which includes, but is not limited to, showing proof of any disciplinary action taken or pending disciplinary action imposed upon the applicant.
(ii) Have passed the national physical therapy examination with a score as specified in R 338.7107(1).
(b) If an applicant was first licensed in another jurisdiction recognized by the federation of state boards of physical therapy and engaged in the practice of physical therapy for less than 5 years before the date of filing an application for a Michigan physical therapist license, then the applicant shall comply with all of the following:
(i) Have graduated from either a physical therapist educational program approved by the board pursuant to R 338.7104 or graduated from a physical therapy educational program deemed substantially equivalent to the standards adopted by the board in R 338.7104.
(ii) Be verified, on a form supplied by the department, by the licensing agency of any state or territory of the United States in which the applicant holds a current license or ever held a license as a physical therapist, which includes, but is not limited to, showing proof of any disciplinary action taken or pending disciplinary action imposed upon the applicant.
(iii) Have passed the national physical therapy examination with a score as specified in R 338.7107(1).
(iv) Have demonstrated a working knowledge of the English language, if an applicant's physical therapist educational program was taught in a language other than English. To demonstrate a working knowledge of the English language, an applicant shall establish either of the following:
(A) That he or she has obtained a score of not less than 550 on the test of English as a foreign language (toefl) administered by the educational testing service and obtained a score of not less than 50 on the test of spoken English administered by the educational testing service.
(B) That he or she has obtained a score of not less than 89 on the test of English as a foreign language internet-based test (toefl ibt) administered by the educational testing service and obtained the following section scores:
(1) Not less than 21 on the reading section.
(2) Not less than 18 on the listening section.
(3) Not less than 26 on the speaking section.
(4) Not less than 24 on the writing section.

R 338.7111 Requirements for relicensure.
Rule 11. (1) An applicant for relicensure whose license has lapsed for less than 3 years under section 16201(3) of the code may be relicensed upon satisfying both of the following requirements:
(a) Submitting a completed application form provided by the department together with the requisite fee.
(b) Taking and passing the examination of Michigan laws and rules related to the practice of physical therapy that is administered by the department with a minimum scaled score of 75.
(2) An individual whose license has lapsed for 3 or more years under section 16201(4) of the code may be relicensed upon submitting a completed application form provided by the

department together with the requisite fee and upon taking and passing the examination of Michigan laws and rules related to the practice of physical therapy that is administered by the department with a minimum scaled score of 75. An individual also shall satisfy either of the following requirements:
(a) Be verified, on a form supplied by the department, by the licensing agency of any state or territory of the United States in which the applicant holds a current license or ever held a license as a physical therapist, which includes, but is not limited to, showing proof of any disciplinary action taken or pending disciplinary action imposed upon the applicant.
(b) Establish that he or she has been employed as a physical therapist in another jurisdiction recognized by the federation of state boards of physical therapy for a minimum of 500 hours during the immediate 2 years before applying for relicensure.
(c) Take and pass the national physical therapy examination with a score as specified in R 338.7107(1).

R 338.7112 Delegation of acts, tasks, functions, or interventions to an unlicensed individual; supervision of individuals; requirements.
Rule 12. (1) A licensee who delegates the performance of selected acts, tasks, functions, or interventions to an individual as permitted under section 16215 of the code, shall supervise the individual in compliance with section 16109(2) of the code and all of the following requirements:
(a) A licensee who delegates acts, tasks, functions, or interventions to an individual who has not obtained at least an associate's degree related to these activities shall provide direct supervision. As used in this subdivision, "direct supervision" means that the licensee is physically present and immediately available for direction and supervision at the time the procedure is performed, and that the licensee has direct contact with the patient or client during each visit.
(b) A licensee who delegates acts, tasks, functions, or interventions to an individual who has obtained at least an associate's degree related to these activities shall provide general supervision of the individual. As used in this subdivision, "general supervision" means that a licensee is not required to be physically present on site, but shall be continuously available at the time the procedure is performed. Continuously available includes availability by telecommunication or other electronic communication.
(2) A licensee who delegates acts, tasks, functions, or interventions under subrule (1)(a) or (1)(b) of this rule shall also comply with all of the following:
(a) Assure the qualifications of the individual under his or her direct or general supervision, including verification of an individual's training and/or education.
(b) Examine the patient or client before delegating interventions to be performed by an individual.
(c) Provide clinical supervision of an individual to whom acts, tasks, functions, or interventions have been delegated.
(d) Provide predetermined procedures and protocols for acts, tasks, functions, or interventions that have been delegated.
(e) Maintain a permanent record of the names of the individuals to whom acts, tasks, functions, or interventions have been delegated.
(f) Monitor an individual's practice and provision of physical therapy acts, tasks, functions, or interventions.

(g) Meet regularly and in person with the individual to whom acts, tasks, functions, or interventions have been delegated to evaluate his or her performance, review records, and educate the individual on the acts, tasks, functions, or interventions that have been delegated.
(3) At any given time, the number of individuals a licensee may supervise shall not exceed the equivalent of 4 full-time employees.

R 338.7113 Prohibited conduct.
Rule 13. Prohibited conduct includes, but is not limited to, the following acts or omissions by any individual covered by these rules:
(a) Practicing outside of the boundaries of professional competence, based on education, training, and experience.
(b) Failing to provide or arrange for the provision or continuity of necessary physical therapy service.
(c) Engaging in harassment or unfair discrimination based on age, gender, gender identity, race, ethnicity, national origin, religion, sexual orientation, disability, or any basis proscribed by law.
(d) Being involved in a dual or multiple relationship with a current or former patient or client or a member of his or her immediate family, when there is a risk of harm to, or exploitation of, the patient or client. As used in this rule, "dual or multiple relationship" means a relationship in which a licensee is in a professional role with an individual and 1 or more of the following occurs at the same time. All of the following apply:
(i) The licensee takes on a professional role even though a personal, scientific, legal, financial, or other relationship could impair the exercise of professional discretion or make the interests of a patient or client secondary to those of the licensee.
(ii) The licensee takes advantage of any professional relationship or exploits others to further his or her personal, religious, political, business, or financial interests, including inducing a patient or client to solicit business on behalf of the licensee.
(iii) The licensee solicits or engages in a sexual relationship with a current patient or client.
(iv) The licensee solicits or engages in a sexual relationship with an individual, other than a consenting adult, to whom the licensee is delegating the performance of selected acts, tasks, functions, or interventions in the treatment of a patient or client.

R 338.7114 Patient records.
Rule 14. A licensee who practices physical therapy shall keep and maintain a patient record for each patient or client, minor or otherwise, for whom the licensee has provided physical therapy services, in accordance with section 16213 of the code.

ADMINISTRATIVE RULES

SOAHR 208-026

DEPARTMENT OF NATURAL RESOURCES

WILDLIFE DIVISION

WILDERNESS AND NATURAL AREAS

Filed with the Secretary of State on May 15, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of natural resources by 1994 PA 451, MCL 324.35103 and Executive Reorganization Order No. 1991-22, MCL 299.13)

R 322.55.1 is added to the Michigan Administrative Code as follows:

Regulation No. 55, Menominee county.

R 322.55.1 Carney Fen natural area.

Rule 1. The following described area is dedicated as a natural area under the designation of the Carney Fen Natural Area: the parcels of land are located in Section 17, T37N, R27W, Faithhorn township, Menominee county, and Sections 20-21 and 28-32, T37N, R27W, Holmes township, Menominee county, specifically the parcels of S 1/2 of NE 1/4 of NE 1/4, SE 1/4 of NE 1/4, SE 1/2 split along diagonal from NE-corner to SW-corner of SW 1/4 of NE 1/4, SE 1/4, SE 1/2 split along diagonal from NE-corner to SW-corner of NE 1/4 of SW 1/4, SE 1/4 of SW 1/4, SE 1/2 split along diagonal from NE-corner to SW-corner of SW 1/4 of SW 1/4, Section 17, T37N, R27W, Faithhorn township, Menominee county; E 1/2 of NE 1/4, NW 1/4 of NE 1/4, W 1/2 of SE 1/4, NE 1/4 of SE 1/4, E 1/2 of SW 1/4, E 1/2 of NW 1/4, NW 1/4 of NW 1/4, Section 20, T37N, R27W, Holmes township, Menominee county; NE 1/4, W 1/2, Section 21, T37N, R27W, Holmes township, Menominee county; S 1/2 of SW 1/4, W 1/2 of NW 1/4, Section 28, T37N, R27W, Holmes township, Menominee county; W 1/2 of NE 1/4, SE 1/4 of NE 1/4, S 1/2, E 1/2 of NW 1/4, Section 29, T37N, R27W, Holmes township, Menominee county; W 1/2 of SE 1/4, Section 30, T37N, R27W, Holmes township, Menominee county; NE 1/4, S 1/2 of NW 1/4, NE 1/4 of NW 1/4, Section 31, T37N, R27W, Holmes township, Menominee county; and the NW 1/4, Section 32, T37N, R27W, Holmes township, Menominee county, except the NW 1/4 of NW 1/4, and except that portion located east of unnamed road extending easterly off Pokovich Ln. No. 29.4 road (which extends easterly off county road 577, at a point approximately 2 2/3 miles south of village of Nathan and 1/3 mile north of village of Gardner) then heads northeasterly to county road 374 or county road G18 (intersecting at a point on county road 374 or G18

located approximately 3 miles east of village of Nathan) with said unnamed road segment running nearly north-to-south on eastern side of NE 1/4 of NW 1/4 block down to nearly diagonally northeast-to-southwest through the SE 1/4 of NE 1/4 block (of Section 32, T37N, R27W, Holmes township, Menominee county); the Carney fen natural area excludes the right-of-way ("ROW") of county road 374 or county road G18, which divides the area into north unit (north of road easement) and south unit (south of easement); for total of approximately 2325.6 acres, or approximately 941.1 hectares, more or less ("m/l").

ADMINISTRATIVE RULES

SOAHR 2008-036

DEPARTMENT OF AGRICULTURE

OFFICE OF RACING COMMISSIONER

GENERAL RULES

Filed with the Secretary of State on May 18, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the office of racing commissioner by section 7 of 1995 PA 279, MCL 431.307)

R 431.1245, R 431.3055, R 431.3075, and R 431.3295 of the Michigan Administrative Code are amended as follows:

R 431.1245 Declaratory order or ruling.

Rule 1245. (1) Pursuant to section 63 of 1969 PA 306, MCL 24.263, any person may request a declaratory ruling as to the applicability to an actual state of facts of a statute, rule, or order administered by the racing commissioner.

(2) A request for a declaratory ruling shall be submitted in writing to the Racing Commissioner, Michigan Office of Racing Commissioner, PO Box 30773, Lansing, MI 48909-8273 and shall contain all of the following information:

(a) Specific reference to the statute, rule, or order in question.

(b) A complete account of the facts which actually exist for which the declaratory ruling is sought.

(c) Contact information and the signature of the requestor.

(3) Within 45 business days after receiving a submitted request, the commissioner shall notify any person of record as to whether the declaratory ruling will be issued or denied.

(4) The request may be declined for any of the following reasons:

(a) The subject matter of the request is frivolous on its face.

(b) The statement of actual facts or issues contained in a request is indefinite, incomplete, or lacks specificity.

(c) The same, or substantially similar, actual state of facts or issue of law is under investigation or is subject to any litigation, pending or resolved.

(5) Denials shall include the facts upon which the denial has been made.

(6) A declaratory ruling shall include a statement or findings of fact, conclusions of law supported by legal authority or reasoned opinion, and the ruling or determination made.

(7) Once issued, a ruling is binding on the office of racing commissioner and shall not retroactively be changed, but nothing in this rule shall prohibit the commissioner from prospectively changing a ruling.
(8) Upon a written request to the commissioner, a person may inspect, copy, or receive a copy of a declaratory ruling.

R 431.3055 Clerk of scales; duties; jockey weights.
Rule 3055. (1) The clerk of scales shall secure, regulate, and control the jockeys' room, the equipment therein, and the personnel permitted access thereto. The clerk of scales shall weigh all jockeys out and weigh in not less than the first 3 finishers. The clerk of scales shall accurately record and publish a scratch, overweight, change of jockey, and any change of weight or racing colors from what is stated in the official program and shall promptly supply all racing officials and the mutuel department with all pertinent changes.
(2) After each race, the clerk of scales shall report to the racing secretary or his or her representative the weights carried by each horse, with the name of each horse's jockey and the overweight, if any. The clerk of scales shall also report the post time and running time in each race and shall report any other information which may from time to time be required.
(3) The clerk of scales shall promptly report an infraction of the rules with respect to weight, weighing, or riding equipment to the stewards.
(4) A jockey's weight shall include all of the following:
(a) Clothing.
(b) Boots.
(c) Saddle and its attachments.
(d) Saddle cloth.
(e) Other equipment required by the stewards.
(5) A jockey's weight shall not include any of the following:
(a) Whip.
(b) Head number.
(c) Number cloth.
(d) Bridle.
(e) Safety helmet and goggles.
(6) The clerk of scales, with the consent of the stewards, may permit clothing allowances for inclement weather.
(7) Seven pounds is the limit of overweight any horse is allowed to carry. If the weight of a rider exceeds the weight the horse is published to carry, the jockey shall declare the amount of overweight to the clerk of scales at the time designated by the stewards, and the clerk of scales shall have the overweight posted and announced immediately. A trainer has the pre-post time option of removing a jockey from a horse if the jockey is under his or her training and is carrying more than 2 pounds overweight. Such removal shall be without penalty to the trainer. The failure of a jockey to comply with this rule shall be reported to the stewards.
(8) The clerk of scales shall maintain a record of the winning races of an apprentice jockey. At the close of the meeting, or on departure of the jockey, the record sheet shall be attached to the rider's copy of his or her contract or shall be written into his or her certificate and shall be released to the rider. The clerk of scales shall inform the stewards of the expiration date of the apprentice jockey's apprentice allowance.

R 431.3075 Workout clockers.

Rule 3075. (1) The racing commissioner shall employ an experienced clocker. The clocker shall make a record of all morning workouts or any morning trials on the main track or training track of the association. A record of all workouts and trials shall be presented to the racing secretary by the clocker~~s~~ and a copy shall be delivered to the stewards.

(2) Every occupational licensee who exercises a horse shall correctly identify to the clockers the horse he or she is exercising and shall state the distance over which the horse is to be worked and the point at which the workout is intended to begin.

(3) Horses working between races shall also be identified and their times announced. A horse shall not be permitted to work between races without the permission of the stewards and notification to necessary officials to ensure safety.

(4) A horse that has not started for 45 days is ineligible to race until it has completed 1 or more timed workouts satisfactory to the stewards before the day of the race in which the horse is entered. If such workouts do not appear in the daily racing form, they shall be published, where possible, in the track program the day of the race in which the horse is entered or shall be posted in 3 places in the racing plant for public inspection.

(5) The stewards may scratch a horse whose recent workouts have not been properly recorded with the stewards' office.

431.3295 Disqualification.

Rule 3295. (1) A leading horse is entitled to any part of the track, but if any horse swerves or is ridden to either side so as to interfere with or impede another horse, it is a foul and the horse may be disqualified if, in the opinion of the stewards, the incident altered the finish of the race, whether the foul was willful or the result of careless riding. If the stewards determine the foul was intentional or due to careless riding, they shall take disciplinary action against the offending jockey.

(2) The stewards may determine the extent of disqualification in case of fouls. The stewards may place the offending horse behind the horses which, in their judgment, it interfered with or the stewards may place the offending horse last.

(3) When a horse is disqualified under this rule, the stewards may disqualify a horse in the same race belonging wholly or partly to the same owner or trained by the same trainer.

(4) The time recorded for the first horse to cross the finish line shall be the official time of the race, except as provided for in R 431.1330.

(5) The stewards shall take cognizance of foul riding, whether or not an objection is made. An objection shall not be received from any person other than the jockey, trainer, owner, or authorized agent of the owner of the horse allegedly interfered with.

(6) A person shall not assist a jockey in taking his or her equipment off his or her horse, except with permission of the stewards.

(7) A person shall not throw any covering over any horse at the place of dismounting until the horse's equipment is removed.

(8) A jockey shall weigh in at the same weight as that which he or she weighed out. If short of the weigh-out weight by 2 pounds or more, the jockey's mount shall be disqualified and a refund of wagers on the horse shall be ordered.

(9) A horse that does not carry its jockey across the finish line is disqualified. A horse that leaves the course shall turn back and run the course from the point at which the horse left the course.

(10) A jockey who willfully strikes another jockey or horse with his or her whip or who grabs the clothing, equipment, or person of another jockey or horse may be fined, suspended, or ruled off and his or her mount may be disqualified.

(11) Whips are to be used uniformly and the stewards shall take cognizance of unusual use or nonuse of a whip by a jockey.

ADMINISTRATIVE RULES

SOAHR 2009-002

DEPARTMENT OF COMMUNITY HEALTH

DIRECTOR'S OFFICE

PSYCHOLOGY - GENERAL RULES

Filed with the Secretary of State on May 14, 2009

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44 or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of community health by sections 16145(3) and 18201 of 1978 PA 368, MCL 333.16145(3) and 333.18201 et seq. and Executive Order Nos. 1996-1, 1996-2, and 2003-1, being MCL 330.3101, 445.2001 and 445.2011)

R 338.2511 of the Michigan Administrative Code is amended as follows:

R 338.2511 Accreditation; asppb/national register designation for doctoral programs; adoption by reference.

Rule 11. (1) To determine "regionally accredited" as provided in section 18223(1) and (2) of the code, the board adopts by reference the policy and procedures for recognition of accrediting organizations of the council for higher education accreditation (chea), effective January 2006, and the procedures and criteria for recognizing postsecondary accrediting agencies of the U.S. department of education, effective July 1, 2000, as contained in Title 34, Part 602 of the Code of Federal Regulations. Copies of the standards and criteria of the council for higher education accreditation and the U.S. department of education are available for inspection and distribution at cost from the Board of Psychology, Bureau of Health Professions, Department of Community Health, 611 West Ottawa, P.O. Box 30670, Lansing, MI 48909. The chea recognition standards also may be obtained from the Council for Higher Education Accreditation, One Dupont Circle NW, Suite 510, Washington, DC 20036-1110, or from the council's website at http://www.chea.org, at no cost. The federal recognition criteria also may be obtained from the U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202 or from the department's website at http://www.ed.gov at no cost.

(2) The board adopts by reference the standards of the following postsecondary accrediting organizations, which are available for inspection and distribution at cost from the Board of Psychology, Bureau of Health Professions, Department of Community Health, 611 West Ottawa, P.O. Box 30670, Lansing, MI 48909. Copies of the following standards may be obtained from the individual accrediting organization at the identified cost:

(a) The standards of the Middle States Association of Colleges and Schools, Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, set forth in the document entitled "Characteristics of Excellence in Higher Education: Eligibility Requirements and Standards for Accreditation", 2004 edition, which is available free of charge on the association's website at http://www.msche.or or for purchase at a cost of $7.40 as of the time of adoption of these rules.

(b) The standards of the New England Association of Schools and Colleges, Inc., Commission on Institutions of Higher Education, 209 Burlington Road, Bedford, MA 07130, set forth in the document entitled "Standards for Accreditation", 2005 Edition, which is available free of charge on the association's website at http://www.neasc.org or for purchase at a cost of $5.00 as of the time of adoption of these rules.

(c) The standards of the North Central Association of Colleges and Schools, the Higher Learning Commission, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602, set forth in the document entitled "Handbook of Accreditation", Third Edition, which is available for purchase through the association's website at http://www.ncahigherlearningcommission.org at a cost of $30.00 as of the time of adoption of these rules.

(d) The standards of the Northwest Association of Schools, Colleges, and Universities, the Commission on Colleges and Universities, 8060 165th Avenue NE, Suite 100, Redmond, WA 98052, set forth in the document entitled "Accreditation Handbook", 2003 edition, which is available for purchase at a cost of $20.00 as of the time of adoption of these rules, or through the association's website at http://www.nwccu.org.

(e) The standards of the Southern Association of Colleges and Schools, Commission on Colleges, 1866 Southern Lane, Decatur, GA 30033, set forth in the document entitled "Principles of Accreditation: Foundations for Quality Enhancement", copyright 2004, which is available free of charge on the association's website at http://www.sacscoc.org.

(f) The standards of the Western Association of Schools and Colleges, the Accrediting Commission for Senior Colleges and Universities, 985 Atlantic Avenue, Suite 100, Alameda, CA 94501, set forth in the document entitled "Handbook of Accreditation", January 2001, which is available free of charge on the commission's website at http://www.wascweb.org or for purchase at a cost of $20.00 as of the time of adoption of these rules.

(g) The standards of the Western Association of Schools and Colleges, Accrediting Commission for Community and Junior Colleges, 10 Commercial Blvd., Suite 204, Novato, CA 94949 set forth in the document entitled "Accreditation Reference Handbook", August 2005, which is available free of charge on the commission's website at http://www.accjc.org.

(3) For psychology doctoral programs, the board adopts by reference the following criteria and standards:

(a) The designation criteria of the national register of health service providers in psychology and the association of state and provincial psychology boards set forth in the publication entitled "Guidelines for Defining a Doctoral Degree in Psychology," April 2004, which is available for inspection and distribution at cost from the Board of Psychology, Bureau of Health Professions, Michigan Department of Community Health, 611 West Ottawa, Lansing, MI 48909. Copies of the guidelines are available at no cost from the National Register of Health Services Providers in Psychology, 1120 G St. NW, Suite 330, Washington, D.C. 2005 or at the national register's website at www.nationalregister.org, or

from the Association of State and Provincial Psychology Boards, P.O. Box 241245, Montgomery, AL 36124-1245 or at the association's website at www.asppb.org.

(b) The accreditation guidelines and principles of the American psychological association as set forth in the publication entitled "Guidelines and Principles for Accreditation of Programs in Professional Psychology", July 1, 2005, which is available for inspection and distribution at cost from the Board of Psychology, Bureau of Health Professions, Michigan Department of Community Health, 611 West Ottawa, Lansing, MI 48909. Copies of the guidelines are available at no cost from the American Psychological Association, 750 First Street NE, Washington, DC 20002-4242, or from the association's website at no cost at http://www.apa.org.

(c) The accreditation standards of the Canadian psychological association as set forth in the publication entitled "Accreditation Standards and Procedures for Doctoral Programmes and Internships in Professional Psychology", June 2002, which is available for inspection and distribution at cost from the Board of Psychology, Bureau of Health Professions, Michigan Department of Community Health, 611 West Ottawa, Lansing, MI 48909. Copies of the accreditation standards are available at no cost from the Canadian Psychological Association, 141 Laurier Avenue West, Suite 702, Ottawa, ON K1P 5J3 or at the association's website at http://www.cpa.ca/accreditation.

(4) Completion of a doctoral program in psychology that has obtained the national register's and association of state and provincial psychology boards' designation or accreditation by either the American psychological association or the Canadian psychological association shall be evidence of completion of a program acceptable to the department and approved by the board. This subrule takes effect August 1, 2011.

PROPOSED ADMINISTRATIVE RULES, NOTICES OF PUBLIC HEARINGS

MCL 24.242(3) states in part:

"… the agency shall submit a copy of the notice of public hearing to the State Office of Administrative Hearings and Rules for publication in the Michigan register. An agency's notice shall be published in the Michigan register before the public hearing and the agency shall file a copy of the notice of public hearing with the State Office of Administrative Hearings and Rules."

MCL 24.208 states in part:

"Sec. 8. (1) The State Office of Administrative Hearings and Rules shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules."

PROPOSED ADMINISTRATIVE RULES

SOAHR 2006-025

DEPARTMENT OF ENERGY, LABOR AND ECONOMIC GROWTH

OFFICE OF FINANCIAL AND INSURANCE REGULATION

INSURANCE POLICY FORMS - NONCONFORMING CLAUSES

Filed with the Secretary of State on

These rules take effect 7 days after filing with the Secretary of State.

(By authority conferred on the commissioner of the Office of Financial and Insurance Regulation by sections 210, 2236, and 3525 of the insurance code of 1956, 1956 PA 218, 1969 PA 306, E.R.O. No 2008-1 and E.R.O. No 2008-4; MCL 500.210, MCL 500.2236, MCL 500.3525, MCL 24.231 to MCL 24.233, and MCL 445.2005, and MCL 445.2025)

Draft 5/11//2009

R 500.2231 and R 500.2232 are added to the Michigan Administrative Code as follows:

R 500.2231 Definitions.
Rule 1. As used in these rules:
(a) "Act" means the insurance code of 1956, 1956 PA 218, MCL 500.100.
(b) "Commissioner" means the commissioner of the office of financial and insurance regulation.
(c) "Form" means a form identified in section 2236 or in any other section of the act that is subject to section 2236 procedures for approval or disapproval of forms.
(d) "Nonconforming clause" means a clause, exception, or condition identified in R 500.2232.
(e) "Personal insurance" means all certificates issued or insurance policies underwritten and sold on an individual or group basis for personal, family, or household use.
(f) Terms defined in the insurance code of 1956, 1956 PA 218, MCL 500.100, have the same meanings when used in these rules.

R 500.2232 Nonconforming clauses.
Rule 2. (1) Within the meaning of unreasonable in section 3525 of the act or within the meaning of section 2236(5) of the act, the following clauses violate a provision of the act, or are inconsistent, ambiguous, or misleading, or are exceptions and conditions that unreasonably or deceptively affect the risk purported to be assumed in the general coverage of a policy:
(a) A definition of disability in a disability income policy that is more inclusive than the definition of disability used in social security act disability proceedings if the more inclusive

definition ceases to apply when or if the policyholder is denied social security disability benefits.

(b) An intentional acts exclusion in a no-fault insurance policy that purports to limit benefits otherwise payable to a person on the basis of an intentional act committed by someone else or is otherwise inconsistent with the standards for intentional acts established in MCL 500.3105.

(c) An intentional acts exclusion in a fire or multi-peril homeowners insurance policy that purports to define "intentional acts" as including non-volitional acts or acts that do not fit within the common dictionary meaning of the word "intentional" or purports to limit benefits otherwise payable to a person innocent of any wrong doing causally related to the loss in question on the basis of an intentional act committed by someone else.

(d) An intentional acts exclusion in any personal insurance policy other than a no-fault, fire, or multi-peril homeowners insurance policy, that purports to define "intentional acts" as including non-volitional acts or acts that do not fall within the common dictionary meaning of the word "intentional."

(e) A blank or manuscript endorsement in connection with a personal insurance policy.

(f) An arbitration provision that does any of the following:

(i) Requires the insured to pay any costs of arbitration, arbitrator fees, or arbitration forum costs, other than the cost of expert and lay witnesses for the insured, any cost incurred by the insured or his attorney in gathering evidence for the insured, and the insured's own attorney fees, unless underlying law dictates otherwise.

(ii) Requires the insured to travel to a location outside the county of the insured's residence, unless the insured consents to another location after the arbitrable dispute occurs.

(iii) Fails to provide that the arbitration proceeding shall be conducted by an independent and neutral arbitrator, defined as an individual who is not currently in and was not in for at least 2 years preceding the date of arbitration an arrangement for present or future compensation from an insurer and who has no personal or financial interest in a party to the arbitration. An insurer's payment of an arbitrator's fee does not prevent an individual from acting as an arbitrator so long as the individual discloses all compensation received from an insurer within the 2 years immediately preceding the arbitration under subparagraph (iv) of subrule (1) of this rule.

(iv) Fails to establish disclosure obligations and procedures for selecting and insuring the independence and neutrality of the arbitrator, including at a minimum, the following requirements:

(A) The proposed arbitrator must disclose in writing to all parties all matters which constitute a personal or financial interest in a party as specified in subparagraph (iii) of subrule (1) of this rule and any other matter that might constitute a conflict of interest or raise a question as to the proposed arbitrator's independence, impartiality, or neutrality. Such obligation shall continue throughout the arbitration and until its conclusion, with immediate disclosure in writing to all parties required for any matter arising after selection of the arbitrator.

(B) An established procedure by which the parties may, upon receipt of the arbitrator's disclosure, waive any objection to the arbitrator and proceed to arbitration or have the arbitrator replaced with an independent and neutral arbitrator.

(v) Fails to provide the insured with all the substantive rights and defenses that the insured would have if his or her claim were asserted in a court proceeding in this state, exclusive of jury trial.

(vi) Fails to apply this state's law or the law of the appropriate situs where the cause of action arose.

(2) On and after the first day of the third month following the effective date of these rules, an insurer shall not issue, advertise, or deliver to any person in this state a policy, contract, rider, indorsement, certificate, or similar contract document that contains a nonconforming clause. This prohibition does not apply to a contract document in use before that date, but does apply to any contract document revised in any respect on or after that date.

(3) On and after the first day of the third month following the effective date of these rules, a nonconforming clause issued or delivered to any person in this state in a policy, contract, rider, indorsement, certificate, or similar contract document is void and of no effect. This does not apply to contract documents in use before that date, but does apply to any such document revised in any respect on or after that date.

(4) Nothing in this rule limits the commissioner's authority under section 2236 of the act or any other section of the act to disapprove or withdraw approval of any form that contains a nonconforming clause or to take any other action authorized by law.

(5) By the first day of the fourth month following the effective date of these rules, each insurer transacting insurance in this state shall submit to the commissioner a list of all forms in effect in this state that contain nonconforming clauses and shall submit a certification that the list is complete and accurate. If an insurer has no such forms in effect, it shall submit to the commissioner a report certifying that fact.

NOTICE OF PUBLIC HEARING

DEPARTMENT OF ENERGY, LABOR AND ECONOMIC GROWTH
OFFICE OF FINANCIAL AND INSURANCE REGULATION
INSURANCE POLICY FORMS - NONCONFORMING CLAUSES
Rule Set 2006-025 LG
NOTICE OF PUBLIC HEARING
June 2, 2009
Forum
Michigan Library and Historical Center
702 West Kalamazoo
Lansing, Michigan
Forum - Ground Floor - 10:00 a.m.

The Department of Energy, Labor and Economic Growth, Office of Financial and Insurance Regulation, will hold a public hearing on Tuesday, June 2, 2009, at 10:00 a.m. at the Michigan Library and Historical Center, 702 West Kalamazoo, Lansing, Michigan in the Forum on the Ground Floor. This is a second public hearing on revised rules to add proposed R 500.2231 and R 500.2232 to the Michigan Administrative Code. The hearing will be held to receive public comments on proposed revised rules to prohibit the use in insurance policy forms of certain specifically identified clauses that do not conform to the requirements of the Insurance Code.

These rules are promulgated by authority conferred on the commissioner of the Office of Financial and Insurance Regulation by Sections 210, 2236, and 3525 of the Insurance Code, 1956 PA 218, MCL 500.210, MCL 500.2236, and MCL 500.3525. These rules are proposed to take effect 7 days after filing with the Secretary of State.

The rules - Rule Set 2006-025 LG - are published on the Michigan Government web site at http://www.michigan.gov/soahr and will be published in *Michigan Register* June 1, 2009.

Written comments may be submitted to the following address by 5:00 P.M. on Friday, June 5, 2009. Copies of the draft rules may also be obtained by mail or electronic transmission at the following address:

Office of Financial and Insurance Regulation
Office of General Counsel
Department of Energy, Labor and Economic Growth
P.O. Box 30220
Lansing MI 48909-7720

Phone: Dawn Kobus at 517/373-0435, FAX: 517/335-1727, E-mail: Kobusd@Michigan.gov

The hearing site is accessible, including handicapped parking. Individuals attending the meeting are requested to refrain from using heavily scented personal care products, in order to enhance accessibility for everyone. People with disabilities requiring additional accommodations such as information in alternative formats in order to participate in the hearing should contact Dawn Kobus at least 14 working days before the hearing.\

PROPOSED ADMINISTRATIVE RULES

SOAHR 2007-027

DEPARTMENT OF COMMUNITY HEALTH

BUREAU OF EPIDEMIOLOGY

COMMUNICABLE AND RELATED DISEASES

Filed with the Secretary of State on

These rules become effective immediately upon filing with the Secretary of State unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the department of community health by sections 5111 and 9227 of ~~PA 368 of 1978~~ **1978 PA 368** and Executive Reorganization Order Nos.1996-1 and 1997-4, MCL 333.5111, 333.9227, 330.3101, 333.26324 and ~~MCL~~ 333.5114.

Draft May 18, 2009

R 325.171, R 325.172, R 325.173, R 325.174, R 325.176 and R 325.180 of the Michigan Administrative Code are amended and R 325.179a and R 325.179b are added as follows:

R 325.171 Definitions.
Rule 1. (1) As used in these rules:
(a) "Appropriate local health department" means the local health department that has jurisdiction where an individual who has a disease or condition that is required to be reported resides or the local health department of the county in which the service facility is located.
(b) "Code" means ~~Act No. 368 of the Public Acts of 1978, as amended, being §333.1101 et seq. of the Michigan Compiled Laws~~. **1978 PA 368, MCL 333.1101.**
(c) "Communicable" means capable of being transmitted from individual to individual, from animal to individual, or from an inanimate reservoir to an individual.
(d) "Department" means the Michigan department of community health.
(e) "Designated condition" means any condition that is designated in R 325.172 as any of the following:
(i) A serious communicable disease.
(ii) A serious infection.
(iii) A communicable disease.
(iv) An infection.
(v) A noncommunicable disease.
(f) "Director" means the state director of community health or his or her designee.
(g) "Epidemic" means any increase in the number of cases, above the number of expected cases, of any disease, infection, or other condition in a specific time period, area, or demographic segment of the population.

(h) "Local health officer" means the health officer, or designee, in the appropriate local health department.
(i) "Medical and epidemiological information" means any of the following:
(i) Medical histories.
(ii) Results of examinations.
(iii) Findings on laboratory tests.
(iv) Diagnoses.
(v) Treatments employed.
(vi) Outcomes.
(vii) The description and source of suspected causative agents.
(viii) Any other information that is pertinent to an investigation which is requested by the local health department or the department in the course of that investigation.
(j) "Novel influenza" is defined as any strains or subtypes of influenza viruses not included in the current year influenza vaccine formulation.
~~(j)~~ **(k)** "Venereal disease" means any of the following:
(i) Syphilis.
(ii) Gonorrhea.
(iii) Chancroid.
(iv) Lymphogranuloma venereum.
(v) Granuloma inguinale.
(2) Unless the context requires otherwise or as further clarified in these rules, terms defined in the code have the same meanings when used in these rules.

R 325.172 Designation and classification of diseases and infections.
Rule 2. (1) All of the following conditions are designated as serious communicable diseases:
(a) Acquired immunodeficiency syndrome (AIDS).
(b) Amebiasis.
(c) Anaplasmosis.
~~(c)~~ **(d)** Anthrax.
~~(d)~~ **(e)** Arboviral Disease (includes West Nile virus, Eastern equine encephalitis, **Western Equine Encephalitis, Powossan,** St. Louis encephalitis, California-group (Lacrosse encephalitis).
~~(e)~~ **(f)** Aseptic (viral) meningitis.
~~(f)~~ **(g)** Avian Influenza.
~~(g)~~ **(h)** Blastomycosis.
~~(h)~~ **(i)** Botulism.
~~(i)~~ **(j)** Brucellosis.
~~(j)~~ **(k)** Campylobacter enteritis.
~~(k)~~ **(l)** Chancroid.
~~(l)~~ **(m)** Chickenpox (Varicella).
~~(m)~~ **(n)** Chlamydial disease, genital.
~~(n)~~ **(o)** Cholera.
~~(o)~~ **(p)** Coccidioidomycosis.
~~(p)~~ **(q)** Cryptococcosis.
~~(q)~~ **(r)** Cryptosporidiosis.
~~(r)~~ **(s)** Cyclosporiasis.

~~(s)~~ **(t)** Dengue fever.
~~(t)~~ **(u)** Diphtheria.
~~(u)~~ **(v)** Ehrlichiosis.
~~(v)~~ **(w)** Encephalitis, viral.
~~(w)~~ **(x)** Escherichia coli, Shiga toxin positive - serotype O157:H7 and others.
~~(x)~~ **(y)** Giardiasis.
~~(y)~~ **(z)** Glanders.
~~(z)~~ **(aa)** Gonorrhea.
~~(aa)~~ **(bb)** Granuloma inguinale (Donovanosis).
~~(bb)~~ **(cc)** Haemophilus influenzae disease, meningitis, or epiglottitis.
~~(cc)~~ **(dd)** Hantavirus pulmonary syndrome.
~~(dd)~~ **(ee)** Hemolytic Uremic syndrome (HUS), postdiarrheal.
~~(ee)~~ **(ff)** Hepatitis A.
~~(ff)~~ **(gg)** Hepatitis B.
~~(gg)~~ **(hh)** Hepatitis C.
(ii) Hepatitis D.
(jj) Hepatitis E.
~~(hh) Hepatitis, viral non-A ,B, C.~~
~~(ii)~~ **(kk)** Histoplasmosis.
~~(jj)~~ **(ll)** Human immunodeficiency virus (HIV).
(~~kk~~) **(mm)** Influenza.
(~~ll~~) **(nn)** Legionellosis.
(~~mm~~) **(oo)** Leprosy.
(~~nn~~) **(pp)** Leptospirosis.
~~(oo)~~ **(qq)** Listeriosis.
~~(pp)~~ **(rr)** Lyme disease.
(~~qq~~) **(ss)** Lymphogranuloma venereum.
~~(rr)~~ **(tt)** Malaria.
(~~ss~~) **(uu)** Measles (Rubeola).
~~(tt)~~ **(vv)** Meningococcal disease, meningitis, or meningococcemia.
~~(uu)~~ **(ww)** Meningitis, other bacterial.
~~(vv)~~ **(xx)** Mumps.
~~(ww)~~ **(yy)** Orthopox virus (includes smallpox and Monkeypox).
(~~xx~~) **(zz)** Pertussis.
(~~yy~~) **(aaa)** Plague.
~~(zz)~~ **(bbb)** Poliomyelitis, paralytic.
(~~aaa~~) **(ccc)** Psittacosis.
~~(bbb)~~ **(ddd)** Q fever.
~~(ccc)~~ **(eee)** Rabies, human.
(~~ddd~~) **(fff)** Rickettsial disease.
~~(eee)~~ **(ggg)** Rocky Mountain spotted fever.
~~(ggg)~~ **(hhh)** Rubella.
~~(hhh)~~ **(iii)** Rubella syndrome, congenital.
~~(iii)~~ **(jjj)** Salmonellosis.
~~(jjj)~~ **(kkk)** Severe Acute Respiratory Syndrome (SARS).
~~(kkk)~~ **(lll)** Shigellosis.
~~(lll)~~ **(mmm)** Spongioform encephalopathy (includes Creutzfeldt-Jakob disease).

~~(mmm)~~ **(nnn)** Staphylococcus aureus infections, vancomycin intermediate/resistant VISA/VRSA).
~~(nnn)~~ **(ooo)** Staphylococcus aureus infections methicillin resistant (MRSA) (outbreaks only).
~~(ooo)~~ **(ppp)** Streptococcus pneumoniae infections, sterile sites, susceptible/resistant.
~~(ppp)~~ **(qqq)** Streptococcal infections, Streptococcus pyogenes group A, sterile sites.
~~(qqq)~~ **(rrr)** Syphilis.
~~(rrr)~~ **(sss)** Tetanus.
~~(sss)~~ **(ttt)** Trachoma.
~~(ttt)~~ **(uuu)** Trichinosis.
~~(uuu)~~ **(vvv)** Tuberculosis.
(~~vvv~~) **(www)** Tularemia.
(~~www~~) **(xxx)** Typhoid fever.
(~~xxx~~) **(yyy)** Typhus.
(zzz) **Vibriosis.**
~~(yyy)~~ **(aaaa)** Viral hemorrhagic fevers, (includes Lassa fever and Congo Crimean hemorrhagic fever).
~~(zzz)~~ **(bbbb)** Yellow fever.
(~~aaaa~~) **(cccc)**Yersinia enteritis.
~~(bbbb)~~ **(dddd)** The unusual occurrence, outbreak, or epidemic of any condition, including healthcare-associated infections.
(2) All of the following are designated as serious infections if a laboratory confirms their presence in an individual:
(a) Anaplasma phagocytophilum.
~~(a)~~ **(b)** Arbovirus.
~~(b) Avian influenza virus.~~
(c) Bacillus anthracis.
(d) Bordetella pertussis.
(e) Borrelia burgdorferi.
(f) Brucella species.
(g) Calymmatobacterium granulomatis.
(h) Campylobacter species.
(i) Chlamydia psittaci.
(j) Chlamydia trachomatis.
(k) Clostridium botulinum.
(l) Clostridium tetani.
(m) Coccidiodes immitis.
(n) Corynebacterium diphtheriae.
(o) Coxiella burnetii.
(p) Cryptococcus neoformans.
(q) Cryptosporidium species.
(r) Cyclospora species.
(s) Dengue Virus.
(t) Ehrlichia species.
(u) Encephalitis (viral).
(v) Entamoeba histolytica.
(w) Escherichia coli, shiga toxin positive - serotype O157:H7 and others.

(x) Francisella tularensis.
(y) Giardia lamblia.
(z) Haemophilus ducreyi.
(aa) Haemophilus influenzae type B, **sterile sites or in patients less than 15 years of age.**
(bb) Hantavirus.
(cc) Hemorrhagic fever viruses.
(dd) Hepatitis A, IgM.
(ee) Hepatitis B surface antigen.
(ff) HIV (Confirmed positive HIV serology and detection tests; CD4 counts/percents and all viral loads on people already known to be infected).
(gg)Histoplasma capsulatum.
(hh) Influenza virus.
(ii) Legionella species.
(jj) Leptospira species.
(kk) Listeria monocytogenes.
(ll) Meningitis, other bacterial.
(mm) Measles (Rubeola) virus.
(nn) Mumps virus.
(oo) Mycobacterium bovis.
(pp) Mycobacterium leprae.
(qq) Mycobacterium tuberculosis.
(rr) Neisseria gonorrhoeae.
(ss) Neisseria meningitidis.
(tt) Novel influenza.
~~(tt)~~ **(uu)** Orthopox viruses.
~~(uu)~~ **(vv)** Plasmodium species.
~~(vv)~~ **(ww)** Poliovirus.
~~(ww)~~ **(xx)** Rabies virus.
~~(xx)~~ **(yy)** Rickettsia ricketsii.
~~(yy)~~ **(zz)** Rickettsia species.
~~(zz)~~ **(aaa)** Rubella virus.
(~~aaa~~) **(bbb)** Salmonella species.
~~(bbb~~) **(ccc)** SARS coronavirus.
~~(ccc~~) **(ddd)** Shigella species.
~~(ddd~~) **(eee)** Spongioform encephalopathy (includes Creutzfeldt-Jakob disease).
~~(eee)~~ **(fff)** Staphylococcus aureus, vancomycin intermediate/resistant VISA/VRSA.
~~(fff~~) **(ggg)** Staphylococcus aureus, methicillin resistant - outbreak only.
(~~ggg~~) **(hhh)** Streptococcus pneumoniae, sterile sites, susceptible/resistant.
~~(hhh~~) **(iii)** Streptococcus pyogenes invasive, group A, sterile sites.
~~(iii)~~ **(jjj)**Treponema pallidum.
~~(jjj)~~ **(kkk)** Trichinella spiralis.
~~(kkk~~) **(lll)** Varicella virus (Chickenpox).
(lll) ~~Vibrio cholera serovar 01.~~ **Vibrio species.**
(mmm) Yellow fever virus.
(nnn) Yersinia enterocolitica.
(ooo) Yersinia pestis.
(ppp) The unusual occurrence, outbreak, or epidemic of any infection.

(3) All of the following conditions are designated as noncommunicable diseases:
(a) Guillain-Barre syndrome.
(b) Kawasaki disease.
(c) Reye's syndrome.
(d) Rheumatic fever.
(e) Toxic shock syndrome.

R 325.173 Reporting and surveillance requirements.
Rule 3. (1) A physician shall report each case of a serious communicable disease specified in R 325.172, except for human immunodeficiency virus infection and acquired immunodeficiency syndrome ~~which are governed by MCL 333.5114~~, within 24 hours of diagnosis or discovery, to the appropriate health department. **Reporting requirements for human immunodeficiency virus infection and acquired immunodeficiency syndrome are set out in MCL 333.5114 and subrules (12) to (14) of this rule.**
(2) A physician shall report the unusual occurrence of any disease, infection, or condition that threatens the health of the public, within 24 hours of diagnosis or discovery, to the appropriate local health department.
(3) A physician shall report noncommunicable diseases specified in R 325.172 within 3 days of diagnosis or discovery, to the appropriate local health department.
(4) A physician **may** ~~is authorized to~~ report any disease, infection, or condition that is not included in subrule (1), (2), or (3) of this rule to the appropriate local health department according to the physician's medical judgment.
(5) A ~~clinical~~ laboratory shall report, within 24 hours of discovery, both of the following to the appropriate local health department:
(a) Laboratory evidence of any serious infection specified in R 325.172 except for human immunodeficiency virus which is governed by MCL 333.5114.
(b) Laboratory evidence of any other disease, infection, or condition that is judged by the laboratory director to indicate that the health of the public is threatened. A laboratory in this state that receives or processes specimens to be tested for the listed agents shall report a result confirming presence of a listed agent, even if the testing is not done on-site, for example, the specimen is shipped to a**n out-of-state** reference laboratory for testing.
(6) When a physician or ~~clinical~~ laboratory **director** suspects the presence of a designated condition, but does not have sufficient information to confirm its presence, the physician or laboratory shall report the designated condition as suspect to the appropriate local health department. Upon confirmation of the designated condition, a physician or laboratory **director** shall report the condition as confirmed to the appropriate local health department.
(7) A health facility infection control committee shall develop policies and procedures to ensure the appropriate reporting of designated conditions by physicians who treat individuals at that facility and by ~~clinical~~ laboratories at that facility.
(8) All of the following individuals **may** ~~are authorized to~~ report to the appropriate local health department any designated condition or any other disease, infection, or condition which comes to their professional attention and which poses a threat to the health of the public:
(a) An administrator, epidemiologist, or infection control professional from a health care facility or other institution.
(b) A dentist.
(c) A nurse.

(d) A pharmacist.
(e) A physician's assistant.
(f) A veterinarian.
(g) Any other health care professional.
(9) ~~Within 24 hours of suspecting any of the following, a primary or secondary school, child daycare center, or camp shall report both of the following to the appropriate local health department:~~ **A primary or secondary school, child daycare center, or camp shall report, within 24 hours of suspecting, both of the following to the appropriate local health department:**
(a) The occurrence among those in attendance of any of the serious communicable diseases specified in R 325.172, except for human immunodeficiency virus and acquired immunodeficiency syndrome which are governed by MCL 333.5131.
(b) The unusual occurrence, outbreak, or epidemic among those in attendance of any disease, infection, or condition.
(10) A report shall be directed to the appropriate local health department. A report may be written, oral, or transmitted by electronic media. A report shall be transmitted in a manner prescribed or approved by the appropriate local health department.
(11) Except as provided in subrules (13) and (14) of this rule, ~~and except for human immunodeficiency virus and acquired immunodeficiency syndrome which are governed by MCL 333.5114,~~ a required report by a physician shall contain all of the following information:
(a) The patient's full name.
(b) The patient's residential address, including street, city, village or township, county, and zip code.
(c) The patient's telephone number.
(d) The patient's date of birth, age, sex, race, and ethnic origin.
(e) The name of the disease, infection, or condition reported.
(f) The estimated date of the onset of the disease, infection, or condition, where applicable.
(g) The identity of the reporting person.
(h) Pertinent laboratory results.
(i) Any other information considered by the physician to be related to the health of the public.
(12) Acquired immunodeficiency syndrome (AIDS), human immunodeficiency virus (HIV) infection, tuberculosis, and venereal disease shall be reported by completing forms provided by the department.
(13) In addition to reporting requirements under section 5114 of the public health code for acquired immunodeficiency syndrome (AIDS), human immunodeficiency virus (HIV) infection, a physician shall report, if available, the ethnicity and country of birth, if known, of the test subject.
(14) Nothing in these rules is intended to limit use or disclosure of information needed by the department or local health department to carry out its responsibilities under the public health code as authorized by, but not limited to, MCL 333.5131.
~~(13)~~ **(15)** Viral influenza need only be reported by the number of cases identified during a specified time period **or when influenza is suspected to have caused or contributed to mortality in a person aged less than 18 years, or if the infected individual traveled outside of North America within the 2 weeks prior to symptom onset**.

~~(14)~~ **(16)** A required report by a ~~clinical~~ laboratory shall contain all of the following information, except for human immunodeficiency virus and acquired immunodeficiency syndrome, which are governed by MCL 333.5114:

(a) The patient's full name.

(b) The patient's residential address, including street, city, village or township, county, and zip code.

(c) The patient's telephone number.

(d) The patient's date of birth or age.

(e) The patient's sex.

(f) The specific laboratory test, date performed, and the results.

(g) The name and address of the reporting ~~clinical~~ laboratory.

(h) The name, address, and telephone number of the ordering person.

~~(15)~~ **(17)** To the extent that the information is readily available, a report of an unusual occurrence, outbreak, or epidemic of a disease, infection, or other condition **shall** include all of the following information:

(a) The nature of the confirmed or suspected disease, infection, or condition.

(b) The approximate number of cases.

(c) The approximate illness onset dates.

(d) The location of the outbreak.

~~(16)~~ **(18)** Within 24 hours of receiving a report, a local health department shall communicate the report of an individual who has a serious communicable disease specified in R 325.172 or a serious infection specified in R 325.172 to the department and any other Michigan jurisdiction if the individual resides in that other jurisdiction.

~~(17)~~ **(19)** Within 3 days of receiving a report, a local health department shall communicate the report of an individual who has a noncommunicable disease specified in R 325.172 to the department and another Michigan jurisdiction if the individual resides in that other jurisdiction.

~~(18)~~ **(20)** Within 24 hours of receiving a report that concerns an individual who resides outside of **this state** ~~Michigan~~, a local health department shall forward the report to the department.

~~(19)~~ **(21)** Reports of designated conditions acquired by residents of a local health department's jurisdiction shall be recorded by the local health officer and shall be forwarded to the department in a format specified by the department.

R 325.176 Immunizations required of children attending group programs or entering school.

Rule 6. (1) As used in this rule:

(a) "Certificate of immunization" means a medical, health department, school, or personal record which indicates the dates when each dose of a vaccine was given to an individual and which is certified by a health professional or local health department.

(b) "Exemption" means a temporary or permanent waiver of 1 or more of the specific immunization requirements for medical, religious, or other reasons.

(c) "Medical exemption" means a written statement from a physician that a vaccination is medically contraindicated for a particular child for a specified period of time.

(d) "Religious or other exemption" means a written statement which is signed by the parent, guardian, or person in loco parentis of a child, which certifies that immunization is in conflict with religious or other convictions of the signer, and which includes the name and date of birth of the child.

(e) "Vaccine" means an agent for immunization against an infection or disease caused by an infectious agent.

(2) A child who is 2 months through 3 months of age and who is registered in a program of group residence or care shall have received at least all of the following vaccines:

(a) One dose of any appropriate diphtheria vaccine.

(b) One dose of any appropriate tetanus vaccine.

(c) One dose of any appropriate pertussis vaccine.

(d) One dose of any appropriate poliovirus vaccine.

(e) One dose of any appropriate Haemophilus influenzae type ~~b~~ **B** vaccine.

(f) One dose of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(g) ~~Effective January 1, 2007, 1~~ **One** dose of any appropriate pneumococcal conjugate vaccine.

(3) A child who is 4 months through 5 months of age and who is registered in a program of group residence or care shall have received at least all of the following vaccines:

(a) Two doses of any appropriate diphtheria vaccine.

(b) Two doses of any appropriate tetanus vaccine.

(c) Two doses of any appropriate pertussis vaccine.

(d) Two doses of any appropriate poliovirus vaccine.

(e) Two doses of any appropriate Haemophilus influenzae type ~~b~~ **B** vaccine.

(f) Two doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(g) ~~Effective January 1, 2007, 2~~ **Two** doses of any appropriate pneumococcal conjugate vaccine.

(4) A child who is 6 months through **15** ~~14~~ months of age and who is registered in a program of group residence or care shall have received at least all of the following vaccines:

(a) Three doses of any appropriate diphtheria vaccine.

(b) Three doses of any appropriate tetanus vaccine.

(c) Three doses of any appropriate pertussis vaccine.

(d) Two doses of any appropriate poliovirus vaccine.

(e) Two doses of any appropriate Haemophilus influenzae type ~~b~~ **B** vaccine.

(f) Two doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(g) ~~Effective January 1, 2007, p~~ **P**neumococcal conjugate vaccine as shown by either of the following:

(i) Three doses of any appropriate pneumococcal conjugate vaccine.

(ii) Receipt of an age appropriate complete series of any appropriate pneumococcal conjugate vaccine.

(5) A child who is **16** ~~15~~ months through **18** ~~23~~ months of age and who is registered in a program of group residence, care, or camping shall have received at least all of the following vaccines:

(a) **Three** ~~Four~~ doses of any appropriate diphtheria vaccine.

(b) **Three** ~~Four~~ doses of any appropriate tetanus vaccine.

(c) **Three** ~~Four~~ doses of any appropriate pertussis vaccine.

(d) **Two** ~~Three~~ doses of any appropriate poliovirus vaccine.

(e) Haemophilus Influenzae type ~~b~~ **B** vaccine age as shown by either of the following:

(i) Receipt of 1 dose of any appropriate haemophilus influenzae type ~~b~~ **B** vaccine at or after 15 months of age.

(ii) Receipt of a complete series of any appropriate haemophilus influenzae type ~~b~~ **B** vaccine.

(f) One dose of any appropriate live measles vaccine at or after 12 months of age. A laboratory finding of measles immunity satisfies this requirement.

(g) One dose of any appropriate live mumps vaccine at or after 12 months of age. A laboratory finding of mumps immunity satisfies this requirement.

(h) One dose of any appropriate live rubella vaccine at or after 12 months of age. A laboratory finding of rubella immunity satisfies this requirement.

(i) **Two doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.** ~~Have evidence of hepatitis B immunity as shown by either 3 doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.~~

~~(j) Have evidence of varicella immunity as shown by any of the following:~~

~~(i) One dose of any appropriate varicella vaccine at or after 12 months of age.~~

~~(ii) Laboratory evidence of varicella immunity.~~

~~(iii) A parent, guardian, person in loco parentis, or physician statement that the child has had varicella disease.~~

(**j** ~~k~~) ~~Effective January 1, 2007, p~~ **P**neumococcal conjugate vaccine as shown by either of the following:

(i) Four doses of any appropriate pneumococcal conjugate vaccine.

(ii) Receipt of an age appropriate complete series of any appropriate pneumococcal conjugate vaccine.

(6) A child who is **19** ~~24~~ months through 4 years of age and who is registered in a program of group residence, care, or camping shall have received at least all of the following vaccines:

(a) Four doses of any appropriate diphtheria vaccine.

(b) Four doses of any appropriate tetanus vaccine.

(c) Four doses of any appropriate pertussis vaccine.

(d) Three doses of any appropriate poliovirus vaccine.

(e) Haemophilus influenzae type ~~b~~ **B** vaccine as shown by either of the following:

(i) Receipt of 1 dose of any appropriate Haemophilus influenzae type ~~b~~ **B** vaccine at or after 15 months of age.

(ii) Receipt of a complete series of any appropriate Haemophilus influenzae type ~~b~~ **B** vaccine.

(f) One dose of any appropriate live measles vaccine at or after 12 months of age. A laboratory finding of measles immunity satisfies this requirement.

(g) One dose of any appropriate live mumps vaccine at or after 12 months of age. A laboratory finding of mumps immunity satisfies this requirement.

(h) One dose of any appropriate live rubella vaccine at or after 12 months of age. A laboratory finding of rubella immunity satisfies this requirement.

(i) Three doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(j) Have evidence of varicella immunity as shown by any of the following:

(i) One dose of any appropriate varicella vaccine at or after 12 months of age.

(ii) Laboratory evidence of varicella immunity.

(iii) A parent, guardian, person in loco parentis, or physician statement that the child has had varicella disease.

(k) Effective January 1, 2007, pneumococcal conjugate vaccine as shown by either of the following:

(i) Four doses of any appropriate pneumococcal conjugate vaccine.

(ii) Receipt of an age appropriate complete series of any appropriate pneumococcal conjugate vaccine.

(iii) Receipt of 1 dose of any appropriate pneumococcal conjugate vaccine at or after 24 months of age.

(7) A child who is 5 years of age and who is registered in a program of group residence, care, or camping shall have received at least all of the following vaccines:

(a) Four doses of any appropriate diphtheria vaccine.

(b) Four doses of any appropriate tetanus vaccine.

(c) Four doses of any appropriate pertussis vaccine.

(d) Three doses of any appropriate poliovirus vaccine.

(e) One dose of any appropriate live measles vaccine at or after 12 months of age. A laboratory finding of measles immunity satisfies this requirement.

(f) One dose of any appropriate live mumps vaccine at or after 12 months of age. A laboratory finding of mumps immunity satisfies this requirement.

(g) One dose of any appropriate live rubella vaccine at or after 12 months of age. A laboratory finding of rubella immunity satisfies this requirement.

(h) Three doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(i) Have evidence of varicella immunity as shown by any of the following:

(i) One dose of any appropriate varicella vaccine at or after 12 months of age.

(ii) Laboratory evidence of varicella immunity.

(iii) A parent, guardian, person in loco parentis, or physician statement that the child has had varicella disease.

(8) A child who is 4 years through 6 years of age and who is entering school shall be in compliance with all of the following immunization requirements:

(a) Have received 4 doses of any appropriate diphtheria vaccine and, if a dose was not received on or after the fourth birthday, a booster dose at school entry.

(b) Have received 4 doses of any appropriate tetanus vaccine and, if a dose was not received on or after the fourth birthday, a booster dose at school entry.

(c) Have received 4 doses of any appropriate pertussis vaccine and, if a dose was not received on or after the fourth birthday, a booster dose at school entry.

(d) Have received 4 doses of any appropriate polio vaccine. If dose 3 was administered after the fourth birthday only 3 doses are required.

(e) Have evidence of measles immunity as shown by either of the following:

(i) Two doses of any appropriate live measles vaccine received after the first birthday, not less than 28 days apart.

(ii) Laboratory evidence of measles immunity.

(f) Have evidence of mumps immunity as shown by either of the following:

(i) Two doses of any appropriate live mumps vaccine received after the first birthday, not less than 28 days apart.

(ii) Laboratory evidence of mumps immunity.

(g) Have evidence of rubella immunity as shown by either of the following:

(i) Two doses of any appropriate live rubella vaccine received after the first birthday, at least 28 days apart.

(ii) Laboratory evidence of rubella immunity.

(h) Three doses of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis B immunity or disease satisfies this requirement.

(I) Have evidence of varicella immunity as shown by any of the following:

(i) **Beginning January 1, 2010, two** ~~one~~ dose**s** of any appropriate live varicella vaccine at or after 12 months of age.

(ii) Laboratory evidence of varicella immunity.

(iii) A parent, guardian, person in loco parentis, or physician statement that the child has had varicella disease.

(9) A child who is 7 through 18 years of age and who is entering school or enrolled in grade 6, shall be in compliance with all of the following immunization requirements:

(a) Have received 4 doses of any appropriate diphtheria vaccine - 3 doses if the first dose was received on or after the seventh birthday. ~~and, if a dose was not received within the last 10 years, a booster dose.~~

(b) Have received 4 doses of any appropriate tetanus vaccine -- 3 doses if the first dose was received on or after the seventh birthday ~~-- and, if a dose was not received within the last 10 years, a booster dose.~~

(c) Beginning January 1, 2010, have received a dose of Tdap vaccine on or after the 11th birthday if 5 years have lapsed since the last dose of tetanus or diphtheria containing vaccine.

(d) ~~(c)~~ Have received 3 doses of any appropriate poliovirus vaccine.

(e) ~~(d)~~ Have evidence of measles immunity as shown by either of the following:

(i) Two doses of any appropriate live measles vaccine received after the first birthday, not less than 28 days apart.

(ii) Laboratory evidence of measles immunity.

(f) ~~(e)~~ Have evidence of mumps immunity as shown by either of the following:

(i) Two doses of any appropriate live mumps vaccine received after the first birthday, not less than 28 days apart.

(ii) Laboratory evidence of mumps immunity.

(g) ~~(f)~~ Have evidence of rubella immunity as shown by either of the following:

(i) Two doses of any appropriate live rubella vaccine received after the first birthday, not less than 28 days apart.

(ii) Laboratory evidence of rubella immunity.

(h) ~~(g)~~ Receipt of a complete series of any appropriate hepatitis B vaccine or a laboratory finding of hepatitis b immunity or disease satisfies this requirement.

(i) ~~(h)~~ Have evidence of varicella immunity as shown by any of the following:

(i) **Beginning January 1, 2010, two** ~~One~~ dose**s** of any appropriate live varicella vaccine at or after 12 months of age. ~~if the child received the vaccine before his or her thirteenth birthday.~~

~~(ii) Two doses of any appropriate live varicella vaccine, administered not less than 28 days apart, if the child received the first dose of vaccine at or after his or her thirteenth birthday.~~

(ii) Laboratory evidence of varicella immunity.

(iii) A parent, guardian, person in loco parentis, or physician statement that the child has had varicella disease.

(j) Beginning January 1, 2010, individual 11 years of age or older have received 1 dose of meningococcal conjugate vaccine upon entry into 6th grade.

(10) To satisfy the requirements in subrules (2) to (9) of this rule, each vaccine shall have been administered in accordance with the manufacturer's instructions. A 4-day grace leniency is allowed on the minimum ages and intervals for each vaccine.

(11) If the requirements for immunization cannot be completed due to medical reasons within 4 months of admittance, a child shall be permitted to remain enrolled in a school or group program for a reasonable length of time that is consistent with good medical practice. A statement requesting the enrollment of the child beyond the exclusion date shall be signed by a physician or local health officer and shall certify that the child is in the process of complying with all immunization requirements. This medical exemption shall be filed with the child's school or group program immunization records until it can be replaced with proof that the vaccines for which an exemption was granted have been received. Upon completion of the required immunizations, a parent shall present the school or group program with a certificate of immunization.

(12) When presented with a medical exemption, religious or other exemption, the administrator of a child's school or operator of a child's group program shall recognize the exemption status of the child.

(13) A standard record of the immunizations required by this rule and exemptions shall be maintained by every school for every pupil on forms supplied by the department. When a pupil transfers to another school or school district, the record of immunization, or a true copy of the record, shall be sent to the new school by the original school.

(14) All of the following information ~~is needed~~ **shall be provided** to fulfill the requirements of section 9209(1) of the code:

(a) A listing, by child, of the number of doses of each vaccine received.

(b) The date of each immunization for each vaccine received in the series.

(c) A listing, by type of exemption granted, of the children who have exemptions.

(15) Not less than 95% of entering students in a school -- less the entering students who have medical, religious, or other exemptions -- shall have received vaccinations as outlined in subrules (8) and (9) of this rule.

(16) A principal of a school or operator of a group program shall make immunization records available for inspection by authorized representatives of the department or the appropriate local health department. The local health officer shall also make public clinic immunization records available to local schools or group programs for the purpose of verifying pupil immunizations.

(17) A requirement for immunization with a specific vaccine may be suspended temporarily at the request of the department director for reasons of inadequate vaccine supply.

R325.179 Submission of tuberculosis laboratory specimens **and test results**.

Rule 9. **(1) For the purpose of this rule, "preliminary result" includes, but is not limited to, results from nucleic acid amplification tests, nucleic acid or other genetic probe tests, chromatographic or other such tests that may be performed prior to final culture identification of a clinical specimen.**

(2) A ~~clinical~~ laboratory that initially receives any clinical specimen which yields Mycobacterium tuberculosis **complex, or yields a preliminary result indicative of Mycobacterium tuberculosis complex,** is responsible for ensuring that the following are submitted ~~to the department~~ :

(a) All preliminary results and any interpretation of those results to the appropriate local health department.

~~(a)~~ **(b)** The first Mycobacterium tuberculosis **complex** isolate, or subculture thereof, from ~~an individual with tuberculosis~~ **the patient being tested for tuberculosis, to the department.**

(c) Any Mycobacterium tuberculosis **complex** isolate, or subculture thereof, from a follow-up specimen, collected 90 days or more after the collection of the first Mycobacterium tuberculosis **complex** positive specimen.

R 325.179a. Submission of other designated conditions specimens.

Rule 9a. (1) A laboratory shall submit to the department the first isolate or subculture thereof, or specimen where appropriate, from the patient being tested, any of the following:

(a) Specimens suspected to contain and suspect isolates of any of the following:

(i) Bacillus anthracis.

(ii) Brucella species.

(iii) Burkholderia pseudomallei.

(iv) Burkholderia mallei.

(v) Clostridridium botulinum.

(vi) Coxiella burnetii.

(vii) Francisella tularensis.

(viii) Orthopox viruses (including smallpox and monkey pox).

(ix) Yersinia pestis.

(b) Specimens that contain and isolates any of the following:

(i) Corynebacterium diphtheriae.

(ii) Escherichia coli 0157:H7 and all other shiga toxin positive serotypes.

(iii) Haemophilus influenzae (only if isolate collected from a normally sterile site or if patient is less than 15 years of age).

(iv) Listeria monocytogenes.

(v) Neisseria meningtidis (only if isolate collected from a normally sterile site)

(vi) Novel influenza.

(vii) Salmonella species including Typhi.

(viii) Severe Acute Respiratory Syndrome (SARS) coronavirus.

(ix) Shigella species.

(x) Staphylococcus aureus (only vancomycin intermediate and resistant).

(xi) Vibrio cholera.

(xii) Vibrio paphemolyticus.

(xii) Vibrio vulnificus.

R 325.179b. Submission of HIV laboratory specimens.

Rule 9b. (1) A laboratory that receives any clinical specimen which yields results indicative of infection with human immunodeficiency virus (HIV) is responsible for ensuring that specimens are submitted to the department or to a laboratory designated by the department. These specimens include any of the following:

(a) Remnant specimens from all positive western blot (WB) or immunofluorescent antibody (IFA) confirmed tests.

(b) Remnant specimens from viral detection or quantitation tests upon request by the department within 3 months from specimen collection date, if available.

(c) Remnant specimens from multiple reactive rapid enzyme immunoassay (EIA) tests that together constitute an HIV diagnosis.

R 325.180 Procedures for control of rabies; disposition of rabid animals.

Rule 10. (1) For the purposes of this rule, animals that are subject to rabies testing are any nonhuman mammals, except for rabbits or hares and rodents other than woodchucks.

(2) As used in this rule, "owner" means a person who has a right of property ownership of an animal, who keeps or harbors an animal, who has custody of an animal, or who permits an animal to remain on or about any premises occupied by the person.

(3) Any laboratory in this state that conducts examinations of animals for rabies shall report all of the following data to the department within 7 days after examination:

(a) Species of animal.

(b) Name and address of the owner of the animal.

(c) Name and address of the person who submits the specimen.

(d) Name and address of the individuals who have been exposed to the animal or the name and address of the owner of the pet that has been exposed to the animal.

(e) Date and results of the examination.

(4) A physician who performs a postmortem on the body of an individual who died of rabies or who was suspected of dying of rabies shall immediately submit nonpreserved portions of the hippocampus major and spinal cord to the department for rabies examination. A history of the case shall accompany the specimens.

(5) An animal that has bitten an individual or otherwise potentially exposed an individual to rabies shall be handled pursuant to the provisions of the publication entitled "Compendium of Animal Rabies Control, ~~1998~~ **2008**" issued by the national association of state public health veterinarians (NASPHV). The provisions of the publication entitled "Compendium of Animal Rabies Control, ~~1998~~ **2008**" are adopted by reference in these rules. Copies of this publication may be obtained from the State Public Health Veterinarian, Communicable Disease Epidemiology Division, Bureau of Epidemiology, Michigan Department of Community Health, ~~3423 N. Martin Luther King, Jr. Blvd., P.O. Box 30195~~ **201 Townsend Street, 5th Floor,** Lansing, Michigan ~~48913~~ 489**09** at no cost as of the time of adoption of these rules.

(6) Any person who has knowledge of an animal bite where rabies is suspected shall, within 24 hours of the biting incident, report the bite to the appropriate local health department and to the local health department where the bite occurred. The report shall include all of the following information:

(a) Animal species inflicting the bite.

(b) Animal owner's name, address, and telephone number.

(c) Vaccination status of the animal.

(d) Date and location of the biting incident.

(e) Name, address, and telephone number of the individual bitten.

(f) Site of the bite on the body.

(g) Name of the reporter of the bite.

(7) Upon request by the department or local health department, any person who has information regarding the identity, whereabouts, or vaccination status of an animal that that has bitten an individual or otherwise potentially exposed an individual to

rabies, or information about the owner of the animal, shall provide information about the animal or the animal's owner to the department or local health department.

NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING
Communicable and Related Diseases

The Department of Community Health will hold a public hearing on Tuesday, June 23, 2009, at 10 a.m. at the Department of Community Health, 201 Townsend, 1st Floor, Conference Centers B & C, Lansing, Michigan.

The public hearing is being held to receive comments from interested persons on amendments to the Communicable and Related Disease Administrative Rule. The proposed rules will update the current rules to reflect the Advisory Committee on Immunization Practices (ACIP) recommendations. The ACIP is an expert panel, which works under the aegis of the Centers for Disease Control and Prevention. Specifically, this rule change will update vaccine requirements to comply with current recommendations. The proposed rule will also reduce the turn around time in which clinical laboratories test and analyze specimens submitted from Michigan providers or laboratories, and assure that clinical laboratories performing testing upon specimens will provide selected preliminary results to the MDCH Bureau of Laboratory. The proposed rule will align the state with current industry standards. This rule will also update the list of diseases that are required to be reported by physicians and laboratories.

These rules are being promulgated under the authority conferred on the department of community health by sections 5111 and 9227 of 1978 PA 368 and Executive Reorganization Order Nos.1996-1 and 1997-4, MCL 333.5111, 333.9227, 330.3101, 333.26324 and 333.5114. These rules are proposed to take effect immediately upon filing with the Secretary of State.

Hearing comments may be presented in person, with written comments available at the time of presentation. Written comments also will be accepted at the following address or E-mail address until 4:30 p.m. on Tuesday, June 23, 2009. Address communications to:

Department of Community Health
Office of Legal Affairs - 201 Townsend - Lansing, MI 48909
Attention: Mary Greco
E-mail address: grecom@michigan.gov Phone: (517) 373-3772

A copy of the proposed rules may be obtained by contacting the address noted above. Electronic copies also may be obtained at: http://www.michigan.gov/dleg/0,1607,7-154-10576_35738---,00.html.

All hearings are conducted in compliance with the Americans with Disabilities Act and Section 504. Hearings are held in buildings that accommodate mobility-impaired individuals and accessible parking is available. A disabled individual who requires accommodations for effective participation in a hearing should call Laurie VanBeelen at (517) 335-1341 to make the necessary arrangements. To ensure availability of the accommodation, please call at least 1 week in advance.

Date: May 18, 2009 SOAHR # 2007-027-CH

PROPOSED ADMINISTRATIVE RULES

SOAHR 2008-019

DEPARTMENT OF ENERGY, LABOR AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

CONSTRUCTION CODE

Filed with the Secretary of State on
These rules take effect 60 days after filing with Secretary of State

(By authority conferred on the director of the department of energy, labor and economic growth by section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1 and 2008-4, MCL 445.2011 and 445.2025)

R 408.30801, 408.30813, R 408.30818, R 408.30834, R 408.30835, and 408.30869 of the Michigan Administrative Code are amended and R 408.30838, R 408.30865, R 408.30870, R 408.30871, R 408.30872, and R 408.30880, are added to the Code as follows:

PART 8. ELECTRICAL CODE

R 408.30801 National electrical code; adoption**s** by reference; inspection; purchase.
Rule 801. (1) The standards contained in the national electrical code, ~~2005~~ 2008 **edition, except sections 501.30B, 502.30B, 503.30B, 505.25B, 506.25B, 547.1 to 547.10, and Annex ~~G~~**H**, as published by the national fire protection association** (NFPA), **shall govern the installation, replacement, alteration, relocation, and use of electrical systems or material. With the exceptions noted, the national electrical code is adopted in these rules by reference.**
(2) **Fine print notes contained within the body of the code are not adopted as a part of the code.**
(3) **All references to the ANSI/ASME A17.1 ~~2004~~**2008**, ~~S~~safety ~~C~~ode for ~~E~~elevators and ~~E~~scalators means the Michigan ~~E~~elevator ~~C~~code and all references to the ~~N~~national ~~E~~electrical ~~C~~code means the Michigan ~~E~~electrical ~~C~~code.**
(4) NFPA 110, standard for emergency and standby power systems, 2005 edition and NFPA 111, standard on stored electrical energy emergency and standby power systems, 2005 edition, are adopted by reference in these rules.
(5) **The code**s ~~is~~are **available for inspection at the Okemos office of the Michigan department of** energy, **labor ~~and~~ &economic growth, bureau of construction codes.**
(6) **The National Electrical Code**, NFPA 110, and NFPA 111 **may be purchased from the National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269, or from the Michigan Department of Energy, Labor and Economic Growth, Bureau of Construction Codes, 2501 Woodlake Circle, Okemos, Michigan 48864, at a cost as of the time of adoption of these rules of $~~72.50~~**75.00, $34.50, and $29.00 **each**, respectively**.**

R 408.30813 Code arrangement.
Rule 813. Section 90.3 of the code is amended to read as follows:
90.3. Code arrangement. The code includes an administration section. Additionally, the code is divided into the introduction and 9 chapters. Chapters 1, 2, 3, and 4 apply generally;

chapters 5, 6, and 7 apply to special occupancies, special equipment, or other special conditions. Chapters 5, 6, and 7 supplement or modify the general rules. Chapters 1 to 4 apply except as amended by chapters 5, 6, and 7 for the particular conditions.

Chapter 8 covers communications systems and is not subject to the requirements of chapters 1 to 7 except where the requirements are specifically referenced in chapter 8.

Chapter 9 consists of tables that are applicable as referenced**.**

Annexes are not part of the requirements of the code but are included for informational purposes only.

R 408.30818 Permits and certificates.

Rule 818. Sections 80.19**.1 of the code is amended and** 80.19~~.1~~, 80.19.2, 80.19.3, 80.19.4, 80.19.5, 80.19.6, 80.19.7, and 80.19.8 are added to the code to read as follows:

80.19. Permits and certificates. A person shall not equip a building with electrical conductors or equipment or make an alteration of, change in, or addition to, electrical conductors or equipment without receiving a written permit to do the work described. If the electrical installation or alterations of, changes in, or addition to, electrical conductors or equipment are found to be in compliance with the provision of the code and if the work has passed the inspection of the enforcing agency, then the enforcing agency shall, upon the request of the permit holder to whom the permit was issued, issue a certificate of final electrical inspection. The certificate certifies that the provisions of the code have been complied with. This section does not apply to installations that are referred to in section 7(3)(a), (b), (c), (d), (e), (f), (h), (k), (l), or (o) of 1956 PA 217, MCL 338.887.

80.19.1. To whom permits are issued. ~~(1) To obtain an electrical permit, an applicant shall be 1 of the following:~~

~~**(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by t.**~~

~~**03he electrical contractor to secure a permit.**~~

~~(b) A person, firm, or corporation holding an affidavit as provided by R 338.1039a.~~

~~(c) A homeowner who occupies or will occupy a single-family dwelling and other accessory structures located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application in accordance with section 10(4) of 1972 PA 230, MCL 125.1510(4).~~

~~**(2) To obtain a permit for a fire alarm system, as defined in section 1a(1) of 1956 PA 217, MCL 338.881a (1), an applicant shall be 1 of the following:**~~

~~(a) A holder of an electrical contractor license.~~

~~(b) A holder of a fire alarm specialty contractor license or the qualifying fire alarm specialty technician qualifying the fire alarm specialty contractor when authorized by the fire alarm specialty contractor to secure a permit.~~

~~(c) A homeowner qualifying under section 80-19.1(1)(c) of the code.~~

~~(3) To obtain a permit for an electrical sign or outline lighting, as defined in section 1b(1) and (2) of 1956 PA 217, MCL 338.881b(1) and (2), an applicant shall be 1 of the following:~~

~~(a) A holder of an electrical contractor license.~~

~~(b) A holder of a sign specialty contractor license or the sign specialty technician qualifying the sign specialty contractor when authorized by the sign specialty contractor to secure a permit.~~

~~(c) A homeowner qualifying under section 80.19.1(1)(c) of the code.~~

~~(4) To obtain a permit for electrical wiring associated with the installation, removal, alteration, or repair of a water well pump on a single-family dwelling to the first point of attachment in the house from the well, an applicant shall be 1 of the following:~~
~~(a) A holder of an electrical contractor license.~~
~~(b) A registered pump installer under part 127 of 1978 PA 368, MCL 333.12701 to 333.12771.~~
~~(c) A homeowner qualifying under section 80.19.1(1)(c) of the code.~~
~~(5) To obtain a permit for wiring associated with existing mechanical and plumbing systems referenced in section 7(3)(i) of 1956 PA 217, MCL 338.887(3)(i), a person shall be 1 of the following:~~
~~(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by the electrical contractor to secure a permit.~~
~~(b) A holder of a mechanical contractor license issued in accordance with section 6(3)(a), (b), (d), (e), and (f) of 1984 PA 192, MCL 338.976(3)(a), (b), (d), (e), and (f).~~
~~(c) A holder of a plumbing contractor license issued in accordance with 2002 PA 733, MCL 338.3511 et seq.~~ **(1) A permit for any type of electrical installation may be secured by 1 of the following:**

(a) A holder of an electrical contractor license or the qualifying master for the electrical contractor when authorized by the electrical contractor to secure a permit.

(b) A homeowner who occupies or will occupy a single-family dwelling and other accessory structures located on the same lot intended for use by the homeowner for which the permit is obtained and who will install the electrical equipment as certified by the homeowner on the permit application in accordance with the act.

(2) A permit for a fire alarm system may be secured by the holder of a fire alarm specialty contractor license or the qualifying fire alarm specialty technician qualifying the fire alarm specialty contractor when authorized by the fire alarm specialty contractor to secure a permit.

(3) A permit for an electrical sign or outline lighting, as defined in section 1b(1) and (2) of 1956 PA 217, MCL 338.881b(1) and (2), may be secured by the holder of a sign specialty contractor license or the sign specialty technician qualifying the sign specialty contractor when authorized by the sign specialty contractor to secure a permit.

(4) A permit for electrical wiring associated with the installation, removal, alteration, or repair of a water well pump on a single-family dwelling to the first point of attachment in the house from the well, may be secured by a registered pump installer under part 127 of 1978 PA 368, MCL 333.12701 to 333.12771.

(5) A permit for wiring associated with existing mechanical and plumbing systems referenced in section 7(3)(i) of 1956 PA 217, MCL 338.887(3)(i), may be secured by the following:

(a) A holder of a mechanical contractor license issued in accordance with section 6(3)(a), (b), (d), (e), and (f) of 1984 PA 192, MCL 338.976(3)(a), (b), (d), and (f).

(b) A holder of a plumbing contractor license issued in accordance with 2002 PA 733, MCL 338.3511 to 338.3569.

80.19.2. Application for permit. Each application for a permit, with the required fee, shall be filed with the code official on a form furnished for that purpose and shall contain a general description of the proposed work and its location. The permit application shall contain all applicable information in accordance with the act and shall include the signature of the applicant in compliance with section 80.19.1 of the code.

80.19.3. Permit expiration. If work for which a permit is issued is not started within 6 months of the date of permit issuance or if work is abandoned for a period of 6 months, then the permit shall lapse and cease to be in effect.

80.19.4. Uncompleted installation notification. If a person to whom a permit is issued for the installation and inspection of electrical conductors and electrical equipment quits the installation for any reason, then the person shall notify the enforcing agency.

80.19.5. Inspection and refunds for partial installation. If an installation is partially completed, then a permit holder, upon quitting the installation, shall notify the enforcing agency and shall request an inspection. The inspector shall record the acceptance of, or violations against, the work installed on the permit record according to the findings of the inspector. The enforcing agency shall not grant a refund to the permit holder of the permit fee covering electrical equipment installed and inspected.

80.19.6. Owner notification to enforcing agency. If a permit holder quits an installation after the electrical equipment is installed and fails to notify the enforcing agency, then the building owner or his or her agent may notify the enforcing agency and request inspection. Upon inspection, the enforcing agency shall send the permit holder a notice of a violation. The owner may then secure another licensed contractor to proceed with the work if the new contractor is properly covered by a permit.

80.19.7. Transfer of permit. An electrical permit is not transferable.

80.19.8. Fraudulent application for permit. A permit that is issued in violation of the laws of this state or as a result of false or fraudulent information or misinterpretation of conditions is subject to revocation at the direction of the enforcing agency. The enforcing agency shall notify the person holding the permit to appear and show cause why the permit should not be revoked. Failure to appear is sufficient grounds for revocation of the permit.

R 408.30834 Maximum number of disconnects.

Rule 834. Section 230.71(A) of the code is amended to read as follows:

230.71(A). General. The service disconnecting means for each service permitted by section 230.2 of the code, or for each set of service-entrance conductors permitted by section 230.40, exception nos. 1, ~~2,~~ 3, or 4, of the code, shall consist of not more than 6 switches or sets of circuit breakers, or a combination of not more than 6 switches and sets of circuit breakers, mounted in a single enclosure, in a group of separate enclosures, in a switchboard or on a switchboard. There shall be not more than 6 sets of disconnects per service grouped in any 1 location.

For the purpose of this section, disconnecting means installed as part of listed equipment and **used solely for** the following**~~power monitoring equipment, transient voltage surge suppressors, or the control circuit of the ground-fault protection system or power-operable service disconnecting means, installed as part of the listed equipment~~, shall not be considered a service disconnecting means:**

(1) Power monitoring equipment.
(2) Surge-protective device or devices.
(3) Control circuit of the ground-fault protection system.
(4) Power-operable service disconnecting means.

R 408.30835 Number of service-entrance conductor sets.

Rule 835. Section 230.40 of the code is amended to read as follows:

230.40. Number of Service-Entrance Conductor Sets. Each service drop or lateral shall supply 1 set of service-entrance conductors.

Exception 1: A building with more than 1 occupancy shall be permitted to have ~~may have~~ **1 set of service-entrance conductors for each service, as defined in section 230.2 of the code, run to each occupancy or group of occupancies.**
Exception 2: Where 2 to 6 service disconnecting means in separate enclosures are grouped at 1 location and supply separate loads from 1 service drop or lateral, 1 set of service-entrance conductors may supply each or several such service equipment enclosures.
Exception 3: A 2-family dwelling or a multifamily dwelling may have 1 set of service-entrance conductors installed to supply the circuits covered in section 210.25 of the code.
Exception 4: One set of service-entrance conductors connected to the supply side of the normal service disconnecting means may supply each or several systems covered by section 230.82(4) or section 230.82(5) of the code.

R 408.30838 NFPA code; adoption by reference.
Rule 838. Sections 700.2 and 701.3 of the code are amended to read as follows:
700.2. Emergency systems. Emergency systems shall be installed in accordance with NFPA 100 and NFPA 111, 2005 editions, which are adopted by reference in these rules.
701.3. Legally required standby systems. Legally required standby systems shall be installed in accordance with NFPA 110 and NFPA 111, 2005 editions, which are adopted by reference in these rules.

R 408.30865 Unsupported raceways.
Rule 865. Section 342.30(C) of the code is amended to read as follows:
342.30(C). Unsupported raceways. Type IMC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30869 Grounding conductors.
Rule 869. Section 250.118 of the code is amended to read as follows:
250.118. Types of equipment grounding conductors. The equipment grounding conductor run with or enclosing the circuit conductors shall be 1 or more or a combination of the following:
(1) A copper, aluminum, or copper-clad aluminum conductor. This conductor shall be solid or stranded; insulated, covered, or bare; and, in the form of a wire or a busbar of any shape.
(2) Rigid metal conduit.
(3) Intermediate metal conduit.
(4) Electrical metallic tubing.
(5) Flexible metallic tubing where the tubing is terminated in listed **fittings** ~~**listed for grounding**~~ **and meeting both of the following conditions:**
(a) The circuit conductors contained in the tubing are protected by overcurrent devices rated at 20 amperes or less.
(b) The length of flexible metallic tubing in the ground return path does not exceed 1.8m (6 feet).
(6) Armor of type AC cable as provided in section 320.108 of the code.
(7) The copper sheath of mineral-insulated, metal-sheathed cable.
(8) Type MC cable where listed and identified for grounding in accordance with both of the following:
(a) The combined metallic sheath and grounding conductor of interlocked metal tape-type MC cable.

(b) The metallic sheath or the combined metallic sheath and grounding conductors of the smooth or corrugated tube type MC cable.
(9) Cable trays as permitted by sections 392.3(c) and 392.7 of the code.
(10) Cablebus framework as permitted by section 370.3 of the code.
(11) Other listed electrically continuous metal raceways and listed auxiliary gutters.
(12) Surface metal raceways listed for grounding.

R 408.30870 Unsupported raceways.
Rule 870. Section 344.30(C) of the code is amended to read as follows:
344.30(C). Unsupported raceways. Type RMC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30871 Unsupported raceways.
Rule 871. Section 352.30(C) of the code is amended to read as follows:
352.30(C). Unsupported raceways. Type PVC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30872 Unsupported raceways.
Rule 872. Section 355.30(C) of the code is amended to read as follows:
355.30(C). Unsupported raceways. Type RTRC shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

R 408.30880 Unsupported raceways.
Rule 880. Section 358.30(C) of the code is amended to read as follows:
358.30(C). Unsupported raceways. Type EMT shall be permitted to be unsupported where the raceway is not more than 900 millimeters (36 inches) long and remains in unbroken lengths (without coupling). Such raceways shall terminate in an outlet box, junction box, device box, cabinet, or other termination at each end of the raceway.

NOTICE OF PUBLIC HEARING

DEPARTMENT OF ENERGY, LABOR & ECONOMIC GROWTH
BUREAU OF CONSTRUCTION CODES
NOTICE OF PUBLIC HEARING
Part 8—Electrical Code Rules (SOAHR# 2008-019 LG)

The Department of Energy, Labor & Economic Growth, Bureau of Construction Codes, will hold a public hearing on Thursday, June 11, 2009, at 9:30 a.m. in Conference Room 3, 1st floor, 2501 Woodlake Circle, Okemos, Michigan 48864. The proposed effective date of the rule set is 60 days after filing with the Secretary of State.

The public hearing is to receive public comments on the proposed amendments to the administrative rules. The proposed rules will adopt the 2008 edition of the National Electrical Code, a national industry standard, and provide Michigan-specific amendments by authority conferred on the Director of the Department of Energy, Labor and Economic Growth by Section 4 of 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1 and 2008-4, MCL 445.2011 and 445.2025.

The proposed rules will be published in the June 1, 2009 *Michigan Register*. Copies of the proposed Michigan amendments to the Part 8—Electrical Code Rules may be obtained for a fee of $3.00 by submitting a check or money order, made payable to the State of Michigan, to the Bureau at the address below. You may download a free copy of the proposed amendments by visiting our website at www.michigan.gov/bcc. The amendments are located under the What's New section.

Oral or written comments may be presented in person at the hearing on June 11, 2009, or submitted in writing by mail, email, or facsimile no later than 5:00 p.m., June 11, 2009. If your presentation is in written form, please provide a copy to a rules analyst at the conclusion of your testimony.

Department of Energy, Labor & Economic Growth
Bureau of Construction Codes
Office of Administrative Services
P.O. Box 30254
Lansing, MI 48909
Telephone (517) 335-2972
Facsimile (517) 241-9570
matsumotos@michigan.gov

The meeting site and parking is accessible. Individuals attending the meeting are requested to refrain from using heavily scented personal care products, in order to enhance accessibility for everyone. People with disabilities requiring additional services (such as materials in alternative format) in order to participate in the meeting should call Tracie Pack at 517-335-2972 (voice) or 517-322-5987 (TTY) at least 14 days prior to the hearing. DELEG is an equal opportunity employer/program.

PROPOSED ADMINISTRATIVE RULES

SOAHR 2008-027

DEPARTMENT OF ENVIRONMENTAL QUALITY

WATER BUREAU

SUPPLYING WATER TO THE PUBLIC

Filed with the Secretary of State on
These rules take effect immediately upon filing with the Secretary of State

(By authority conferred on the department of environmental quality by section 5 of 1976 PA 399, MCL 325.1005, and Executive Reorganization Order 1996-1, MCL 330.3101)

Draft April 17, 2009

R 325.10102, R 325.10103 to R 325.10109, R 325.10112, R 325.10113, R 325.10116, R 325.10308b, R 325.10313, R 325.10401, R 325.10401a, R 325.10402 to R 325.10408, R 325.10408a, R 325.10408b, R 325.10409 to R 325.10415, R 325.10502 to R 325.10506, R 325.10601a, R 325.10602, R 325.10604c, R 325.10604f, R 325.10605, R 325.10610, R 325.10610a to R 325.10610c, R 325.10611a, R 325.10611b, R 325.10702, R 325.10707a, R 325.10708, R 325.10710a to R 325.10710d, R 325.10717b, R 325.10719e, R 325.10720, R 325.10722, R 325.10730, R 325.10731, R 325.10735, R 325.10801, R 325.10802, R 325.10804 to R 325.10806, R 325.10809, R 325.10810, R 325.10812 to R 325.10815, R 325.10823, R 325.10828, R 325.10830, R 325.10831, R 325.10902, R 325.10904, R 325.10905, R 325.11001, R 325.11002, R 325.11006, R 325.11007, R 325.11010, R 325.11011, R 325.11015, R 325.11016, R 325.11102, R 325.11104, R 325.11105, R 325.11110, R 325.11111, R 325.11117, R 325.11118, R 325.11202 to R 325.11206, R 325.11301 to R 325.11306, R 325.11308, R 325.11310, R 325.11311, R 325.11402, R 325.11404, R 325.11405, R 325.11501, R 325.11502 , R 325.11504, R 325.11505, R 325.11505a, R 325.11506, R 325.11601 to R 325.11604, R 325.11703, R 325.11707, R 325.11708, R 325.11711, R 325.11904, R 325.11906a, R 325.11908, R 325.11915, R 325.11917, R 325.12102, R 325.12301 to R 325.12304, R 325.12503, R 325.12505, R 325.12701, R 325.12801 to R 325.12810, and R 325.12812 to R 325.12820 of the Michigan Administrative Code are amended, R 325.10408c, R 325.10408d, R 325.10610d, R 325.10611d to R 325.10611n, R 325.10612, R 325.10612a, R 325.10612b, R 325.10719g to R 325.10719n, R 325.10720b to R 325.10720e, R 325.10739, R 325.10739a, R 325.10739b, R 325.11507 to R 325.11509, R 325.11605, R 325.11606, and R 325.12707 are added, and R 325.10717c, R 325.11713, and R 325.11913 are rescinded from the Code as follows:

PART 1. GENERAL PROVISIONS

R 325.10102 Definitions; A, B.
Rule 102. As used in these rules:

(a) "Act" means 1976 PA 399, MCL 325.1001 et seq. and known as the safe drinking water act.
(b) "Action level" means the concentration of lead or copper in water as specified in R 325.10604f(1)(c) that determines, in some cases, the treatment requirements that a water ~~system~~ **supply** is required to complete.
(c) "Advisory board" means the advisory board of examiners appointed by the director under section 9(2) of the act.
(d) "Alteration" means the modification of, or addition to, an existing waterworks system, or portion of the system, that affects any of the following:
(i) Flow.
(ii) Capacity.
(iii) System service area.
(iv) Source.
(v) Treatment.
(vi) Reliability.
(e) "Approved analytical technique" means a calculation, determination, or other laboratory examination or procedure that has been approved by the United States environmental protection agency ~~pursuant to~~ **under** 40 C.F.R. part 141, which is adopted by reference in R 325.10605.
(f) "Approved basement" means a basement which has walls and a floor that are constructed of concrete or its equivalent, which is essentially watertight, which is effectively drained, and which is in daily use.
(g) "Aquifer" means an underground water-bearing formation which is saturated and which transmits water in sufficient quantities to serve as a water supply.
(h) "Artesian" means a condition of internal pressure which causes the water level in a well to rise above the aquifer used to supply water at the well location.
(i) "Back-up operator" means a certified operator designated by the public water supply to be in charge of the waterworks system or portion of the waterworks system when the operator in charge is not available.
(j) "Bag filters" means pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed of a non-rigid, fabric filtration media housed in a pressure vessel in which the direction of flow is from the inside of the bag to outside.
(k) "Bank filtration" means a water treatment process that uses a well to recover surface water that has naturally infiltrated into groundwater through a river bed or bank or banks. Infiltration is typically enhanced by the hydraulic gradient imposed by a nearby pumping water supply or other well or wells.
~~(j)~~ **(l)** "Bottled drinking water" means water that is ultimately sold, provided, or offered for human consumption in a closed container.

R 325.10103 Definitions; C.
Rule 103. As used in these rules:
(a) "C" in "CT calculation" means the residual disinfectant concentration measured in milligrams per liter in a representative sample of water.
(b) **"Cartridge filters" means pressure-driven separation devices that remove particulate matter larger than 1 micrometer using an engineered porous filtration media. They are typically constructed as rigid or semi-rigid, self-supporting filter**

elements housed in pressure vessels in which flow is from the outside of the cartridge to the inside.

(c) "Casing" means a durable pipe that is placed in a well to prevent the soil from caving in and to seal off surface drainage or undesirable water, gases, contaminants, or other fluids and prevent them from entering the well and the aquifer supplying the well.

~~(c)~~ **(d)** "Casing vent" means an outlet at the upper terminal of a well casing which provides atmospheric pressure in the well and which allows the escape of gases when present.

~~(d)~~ **(e)** "Certificate" means a document that is issued by the department to a person who meets the qualification requirements for operating a waterworks system or a portion of the waterworks system.

~~(e)~~ **(f)** "Certified operator" means an operator who holds a certificate.

(g) "Combined distribution system" means the interconnected distribution system consisting of the distribution systems of wholesale supplies and of the consecutive supplies that receive finished water.

~~(f)~~ **(h)** "Community supply" or "community water supply" or "community water system" means a public water supply that provides year-round service to not fewer than 15 living units or that regularly provides year-round service to not fewer than 25 residents.

~~(g)~~ **(i)** "Complete treatment" means a series of processes, including disinfection and filtration, to treat surface water or ground water under the direct influence of surface water, or to treat ground water not under the direct influence of surface water that uses precipitative softening, to produce a finished water meeting state drinking water standards.

~~(h)~~ **(j)** "Compliance cycle" means the 9-year calendar year cycle during which public water ~~systems~~ **supplies** are required to monitor. Each compliance cycle consists of three 3-year compliance periods. The first calendar year cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.

~~(i)~~ **(k)** "Compliance period" means a 3-year calendar year period within a compliance cycle. Each compliance cycle has three 3-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001.

~~(j)~~ **(l)** "Comprehensive performance evaluation (CPE)" means a thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation, and maintenance practices. It is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements. For purposes of compliance, the comprehensive performance evaluation shall consist of at least all of the following components:

(i) Assessment of plant performance.

(ii) Evaluation of major unit processes.

(iii) Identification and prioritization of performance limiting factors.

(iv) Assessment of the applicability of comprehensive technical assistance.

(v) Preparation of a CPE report.

~~(k)~~ **(m)** "Confluent growth" means a continuous bacterial growth that covers the entire filtration area of a membrane filter, or portion of a filtration area, in which bacterial colonies are not discrete.

(n) "Consecutive system" or "consecutive supply" means a public water supply that receives some or all of its finished water from 1 or more wholesale supplies. Delivery may be through a direct connection or through the distribution system of 1 or more consecutive supplies.

~~(l)~~ **(o)** "Construction" means the erection, installation, or alteration of a waterworks system, or any portion of a waterworks system, that affects any of the following:

(i) Flow.

(ii) Capacity.

(iii) System service area.

(iv) Source.

(v) Treatment.

(vi) Reliability.

~~(m)~~ **(p)** "Contested cases" means matters that are within the definition of a contested case as set forth by section 3(3) of 1969 PA 306, MCL 24.203(3), and matters of issue that involve any of the following which are issued by the director, the department, or the division ~~pursuant to~~ **under** the act and these rules:

(i) Orders.

(ii) Exemptions.

(iii) Variances.

(iv) Stipulations.

(v) Consent agreements.

(vi) Permits.

(vii) Licenses.

(viii) Certificates.

~~(n)~~ **(q)** "Contested case hearing" means a hearing that is initiated by the department or a person under chapters 4, 5, and 6 of 1969 PA 306, MCL 24.271 to 24.306.

~~(o)~~ **(r)** "Contaminant" means a physical, chemical, biological, or radiological substance or matter in water.

~~(p) "Contingency plan" means a plan for use by a supplier of water in the event of an emergency.~~

~~(q)~~ **(s)** "Conventional filtration" means a series of processes, including coagulation, flocculation, sedimentation, and filtration, resulting in substantial particulate removal.

~~(r)~~ **(t)** "Corrosion inhibitor" means a substance that is capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

~~(s)~~ **(u)** "Cross connection" means a connection or arrangement of piping or appurtenances through which a backflow could occur.

~~(t)~~ **(v)** "CT calculation" means the product of residual disinfectant concentration (C) in milligrams per liter determined at or before the first customer and the corresponding disinfectant contact time (T) in minutes; C*T is calculated at rated capacity. The total CT shall be the sum of individual CTs of each disinfectant sequence.

~~(u)~~ **(w)** "Customer service connection" means the pipe between a water main and customer site piping or building plumbing system.

~~(v)~~ **(x)** "Customer site piping" means an underground piping system owned or controlled by the customer that conveys water from the customer service connection to building plumbing systems and other points of use on lands owned or controlled by the customer. Customer site piping does not include any system that incorporates treatment to protect public health.

R 325.10104 Definitions; D, E.
Rule 104. As used in these rules:
(a) "Department" means the department of environmental quality or its authorized agent or representative.
(b) "Deviation" means an exception to a department rule establishing minimum standards or requirements issued in writing or as a condition to a permit to a ~~supplier of water~~ **public water supply**.
(c) "Direct filtration" means a series of processes, including coagulation and filtration, but excluding sedimentation, resulting in substantial particulate removal.
(d) "Director" means the director of environmental quality or his or her authorized agent or representative.
(e) "Disinfectant contact time" (T in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point at or before the point where residual disinfectant concentration is measured. Disinfectant contact time in pipelines shall be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs shall be determined by tracer studies or an equivalent demonstration.
(f) "Disinfection profile" means a summary of Giardia lamblia **inactivation**, and in certain cases~~,~~ virus inactivation**,** through the treatment plant.
(g) "Distribution system" means a system that consists of the following components through which water is distributed and used or intended for use for drinking or household purposes:
(i) Piping.
(ii) Transmission or distribution mains.
(iii) Pumps.
(iv) Pumping stations.
(v) Storage tanks.
(vi) Controls.
(vii) Associated appurtenances.
(h) "Division" means the drinking water and radiological protection division of the department.
(i) "Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a public water ~~system~~ **supply** which has more than 1 service connection that is limited to the specific service connection from which the coliform positive sample was taken.
(j) "Drawdown" means the difference between the static water level and the pumping water level in a well or, for a flowing artesian well, the difference between an established datum above ground and the pumping water level.
(k) "Dual sample set" means a set of 2 samples collected at the same time and same location, with 1 sample analyzed for TTHM and the other sample analyzed for HAA5. Dual sample sets are collected for the purpose of conducting an IDSE under R 325.10719g and determining compliance with the TTHM and HAA5 MCLs under R 325.10610d and R 325.10719h to R 325.10719n.
(~~k~~**l**) "Effective corrosion inhibitor residual," for the purpose of lead and copper control, means a concentration that is sufficient to form a passivating film on the interior walls of a pipe.

(~~l~~**m**) "Emergency" means a situation in a public water supply that results in contamination, loss of pressure, lack of adequate supply of water, or other condition that poses an imminent hazard or danger to the public health.
(~~m~~**n**) "Enhanced coagulation" means the addition of sufficient coagulant for improved removal of disinfection byproduct precursors by conventional filtration treatment.
(~~n~~**o**) "Enhanced softening" means the improved removal of disinfection byproduct precursors by precipitative softening.
(~~o~~**p**) "EPA" means the United States environmental protection agency.
(~~p~~**q**) "Equivalent certificate" means a certificate which is issued to certain individuals. Individuals eligible for an equivalent certificate do not hold a current certificate but were issued certification before the effective date of the current rules.
(~~q~~**r**) "Established ground surface" means the intended or actual finished grade or elevation of the surface of the ground at the site of a water supply facility.
(~~r~~**s**) "Exemption" means an order, with appropriate conditions, time schedules, and compliance requirements, that is issued by the director to a ~~supplier of water~~ **public water supply** permitting a public water supply to be in temporary noncompliance with a state drinking water standard, including a specified treatment technique.

R 325.10105 Definitions; F to L.
Rule 105. As used in these rules:
(a) "Federal act" means the safe drinking water act of 1974, 42 U.S.C. ~~S300f~~ **§300f** et seq. and the ~~provisions of~~ **state and local assistance set forth in** 40 C.F.R. part 35, §35.600 to §35.630; **national primary drinking water regulations set forth in** 40 C.F.R. part 141; and **national primary drinking water regulations implementation set forth in** 40 C.F.R. part 142 promulgated by EPA (~~1999~~**2008**) under the federal act.
(b) "Filter profile" means a graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.
(c) "Finished water" means water that is ~~ready for distribution to the customers or users of a public water supply.~~ **introduced into the distribution system of a public water supply and is intended for distribution and consumption without further treatment, except as treatment necessary to maintain water quality in the distribution system, for example, booster disinfection, addition of corrosion control chemicals.**
(d) "Firm capacity," as applied to wells, pumping stations, or units of treatment systems, means the production capability of each respective part of the waterworks system with the largest well, pump, or treatment unit out of service.
(e) "First draw sample" means a 1-liter sample of tap water which has been standing in plumbing pipes for not less than 6 hours and which is collected without flushing the tap.
(f) "Flowing stream" means a course of running water flowing in a definite channel.
~~(f)~~ **(g)** "GAC10" means granular activated carbon filter beds with an empty-bed contact time of 10 minutes based on average daily flow and a carbon reactivation frequency of every 180 days. **except that the reactivation frequency for GAC10 used as a best available technology for compliance with TTHM and HAA5 MCLs based on a locational annual average under R 325.10610 shall be 120 days.**

(h) "GAC20" means granular activated carbon filter beds with an empty-bed contact time of 20 minutes based on average daily flow and a carbon reactivation frequency of every 240 days.

~~(g)~~ **(i)** "Gravity storage tank" means an elevated or ground level finished water storage reservoir that, during normal use, operates under atmospheric pressure.

~~(h)~~ **(j)** "Ground water" or "groundwater" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water.

~~(i)~~ **(k)** "Ground water under the direct influence of surface water (GWUDI)" means any water beneath the surface of the ground with significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as Giardia lamblia or Cryptosporidium, or significant and relatively rapid shifts in water characteristics, such as turbidity, temperature, conductivity, or pH, that closely correlate to climatological or surface water conditions. The department will determine direct influence for individual sources in accordance with this definition and R 325.10611(1) and will notify the ~~system~~ **supply** of its determination.

~~(j)~~ **(l)** "Grout" means neat cement, concrete, or other sealing material which is approved by the department and which is used to seal a well casing in a well.

~~(k)~~ **(m)** "Haloacetic acids (five) (HAA5)" mean the sum of the concentrations in milligrams per liter of the haloacetic acid compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid), rounded to 2 significant figures after addition.

~~(l)~~ **(n)** "Imminent hazard" means that, in the judgment of the director, there is a violation, or a condition that may cause a violation, of the state drinking water standards at a public water supply requiring immediate action to prevent endangering the health of people.

~~(m)~~ **(o)** "Initial compliance period" means January 1993 to December 1995. For a ~~system~~ **supply** that has less than 150 service connections, the initial compliance period is January 1996 to December 1998 for contaminants listed in part 6 of these rules that have an effective date of January 17, 1994.

(p) "Lake/reservoir" means a natural or man-made basin or hollow on the Earth's surface in which water collects or is stored that may or may not have a current or single direction of flow.

~~(n)~~ **(q)** "Large water supply" or "large water system," for the purpose of lead and copper control, means a public water supply that serves more than 50,000 persons.

~~(o)~~ **(r)** "Lead service line" means a service line which is made of lead and which connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting that is connected to the lead line.

~~(p)~~ **(s)** "License" means the license that is issued by the department to a water hauler, or for a water hauling tank, ~~pursuant to~~ **under** section 18 of the act.

~~(q)~~ **(t)** "Limited treatment system" means a treatment system, including, but not limited to, disinfection, fluoridation, iron removal, ion exchange treatment, phosphate application, or filtration other than complete treatment.

~~(r)~~ **(u)** "Living unit" means a house, apartment, or other domicile occupied or intended to be occupied on a day-to-day basis by an individual, family group, or equivalent.

(v) Locational running annual average (LRAA) is the average of sample analytical results for samples taken at a particular monitoring location during the previous 4 calendar quarters.

R 325.10106 Definitions; M to O.
Rule 106. As used in these rules:
(a) "Maximum residual disinfectant level (MRDL)" means a level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects.
(b) "Maximum TTHM potential" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after 7 days at a temperature of 25 degrees Centigrade or above.
(c) "MCL" means the maximum permissible level of a contaminant in water that is delivered to any user of a public water supply.
(d) "MDL" means method detection limit for analytical work done to determine compliance with the act.
(e) "Medium-size water system" or "medium-size water supply," for the purpose of lead and copper control, means a public water supply that serves more than 3,300 persons and fewer than or equal to 50,000 persons.
(f) "Membrane filtration" means ~~any filtration process using tubular or spiral wound elements that exhibits the ability to mechanically separate water from other ions and solids by creating a pressure differential and flow across a membrane with an absolute pore size of less than 1 micron~~ **a pressure or vacuum driven separation process in which particulate matter larger than 1 micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. This definition includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration, and reverse osmosis**.
(g) "Monitoring requirement" means a schedule, frequency, and location for the sampling and analysis of water that is required by the provisions of part 7 of these rules to determine whether a public water supply is in compliance with the state drinking water standards.
(h) "Near the first service connection" means at 1 of the 20% of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.
(i) "Noncommunity supply" or "noncommunity water supply" or "noncommunity water system" means a public water supply that is not a community supply, but that has not fewer than 15 service connections or that serves not fewer than 25 individuals on an average daily basis for not less than 60 days per year.
(j) "Nontransient noncommunity water supply" or "nontransient noncommunity water system" or "NTNC" means a noncommunity supply that serves not fewer than 25 of the same individuals on an average daily basis more than 6 months per year. This definition includes public water supplies in places of employment, schools, ~~and~~ day-care centers **and bottlers of water**.
(k) "NTU" means nephelometric turbidity unit.
(l) "One hundred-year drought elevation" means the minimum projected water surface elevation that would occur at a location once in a period of 100 years.
(m) "One hundred-year flood elevation" means the maximum projected water surface elevation that would occur at a location once in a period of 100 years.
(n) "Operating shift" means that period of time during which operator decisions that affect public health are necessary for proper operation of the waterworks system.

(o) "Operator" means an individual who operates a waterworks system or a portion of a waterworks system.
(p) "Operator in charge" means a certified operator who is designated by the owner of a public water supply as the responsible individual in overall charge of a waterworks system, or portion of a waterworks system, who makes decisions regarding the daily operational activities of the system that will directly impact the quality or quantity of drinking water.
(q) "Optimal corrosion control treatment," for the purpose of lead and copper control, means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the public water supply to be in violation of any national primary drinking water regulations.

R 325.10107 Definitions; P, R.
Rule 107. As used in these rules:
(a) "Permit" means a public water supply construction permit that is issued to a supplier of water by the department under ~~the provisions of~~ section 4 of the act.
(b) "Person" means an individual, partnership, copartnership, cooperative, firm, company, public or private association or corporation, political subdivision, agency of the state, agency of the federal government, trust, estate, joint structure company, or any other legal entity, or their legal representative, agent, or assignee.
(c) "Pitless adapter" means a device or assembly of parts which permits water to pass through the wall of a well casing or extension of a well casing and which provides access to the well and to the parts of the system within the well in a manner that prevents the entrance of contaminants into the well and the water produced.
(d) "Plans and specifications" means drawings, data, and a true description or representation of an entire waterworks system or parts of the system as it exists or is to be constructed, and a statement of how a waterworks system shall be operated.
(e) **"Plant intake" means the works or structures at the head of a conduit through which water is diverted from a source, for example, river or lake, into the treatment plant.**
(f) "Point-of-entry treatment device (POE)" means a treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.
~~(f)~~ **(g)** "Point-of-use treatment devise (POU)" means a treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that 1 tap.
~~(g)~~ **(h)** "Political subdivision" means a city, village, township, charter township, county, district, authority, or portion or combination of any of the entities specified in this subdivision.
~~(h)~~ **(i)** "PQL" means the practical quantitation levels. The PQL is the lowest concentration that can be reliably achieved by well-operated laboratories within specified limits of precision and accuracy during routine laboratory operating conditions.
(j) "Presedimentation" means a preliminary treatment process used to remove gravel, sand, and other particulate material from the source water through settling before the water enters the primary clarification and filtration processes in a treatment plant.
~~(i)~~ **(k)** "Production well" means a well that has been approved for use for a public water supply in accordance with the provisions of part 8 of these rules.

~~(j)~~ **(l)** "Public hearing" means a hearing which is conducted by the director of the department on matters relating to the functions and responsibilities of the division and which seeks public input relevant to such functions and responsibilities.
~~(k)~~ **(m)** "Public water supply" or "public water system" means a waterworks system that provides water for drinking or household purposes to persons other than the supplier of the water, and does not include either of the following:
(i) A waterworks system that supplies water to only 1 living unit.
(ii) A waterworks system that consists solely of customer site piping.
~~(l)~~ **(n)** "Pumping water level" means the distance measured from an established datum at or above ground level to the water surface in a well being pumped at a known rate for a known period of time.
~~(m)~~ **(o)** "Rated treatment capacity" means 1 or any combination of the following capacities when water treatment is practiced:
(i) Rated capacity from an approved surface water supply, ground water supply under the direct influence of surface water, or complete treatment system as contained in R 325.11006.
(ii) Firm capacity from an approved ground water supply where firm capacity means the production capability of each respective component of the waterworks system with the largest well, pump, or treatment unit out of service.
(iii) Available capacity obtained under contract and capable of delivery from another approved public water supply.
~~(n)~~ **(p)** "Raw water" means water that is obtained from a source by a public water supply before ~~a supplier of water~~ **the public water supply** provides any treatment or distributes the water to its customers.
~~(o)~~ **(q)** "Regional administrator" means the EPA region V administrator.
~~(p)~~ **(r)** "Regulated VOCs" means a group of volatile organic chemicals for which state drinking water standards have been promulgated, but does not include total trihalomethanes.
~~(q)~~ **(s)** "Removed from service" means physically disconnected from the waterworks system in a manner that would prevent the inadvertent use of the well and would require specific authorization from the ~~supplier of water~~ **public water supply** to reconnect.
~~(r)~~ **(t)** "Repeat sample" means a sample that is collected and analyzed in response to a previous coliform-positive sample.
~~(s)~~ **(u)** "Resident" means an individual who owns or occupies a living unit.
~~(t)~~ **(v)** "Routine sample" means a water sample that is collected and analyzed to meet the monitoring requirements for total coliform, as outlined in the written sampling plan.

R 325.10108 Definitions; S.
Rule 108. As used in these rules:
(a) "Sanitary survey" means an evaluation, including an on-site review of a waterworks system or a portion of the waterworks system, including all of the following applicable components for existing or potential health hazards for the purpose of determining the ability of the public water supply to produce, treat, and distribute adequate quantities of water meeting state drinking water standards:
(i) Source.
(ii) Treatment.
(iii) Distribution system.
(iv) Finished water storage.
(v) Pumps, pump facilities, and controls.

(vi) Monitoring, reporting, and data verification.
(vii) System management and operation.
(viii) Operator compliance with state requirements.
(b) "Service connection" means a direct connection from a distribution water main to a living unit or other site to provide water for drinking or household purposes.
(c) "Service line sample" means a 1 liter sample of water that has been standing for not less than 6 hours in a service line.
(d) "Shift operator" means a certified operator, other than the operator in charge, who is in charge of an operating shift of a waterworks system.
(e) "Single-family structure," for the purpose of lead and copper control, means a building which is constructed as a single-family residence and which is currently used as either a residence or a place of business.
(f) "Small water supply" or "small water system," for the purpose of lead and copper control, means a public water supply that serves fewer than 3,301 persons.
(g) "SOC" means synthetic organic chemical.
(h) "Source" means the point of origin of raw water or means treated water that is purchased or obtained by a public water supply, by a water hauler, or by a person who provides bottled water.
(i) "State drinking water standards" means quality standards setting limits for contaminant levels or establishing treatment techniques to meet standards necessary to protect the public health.
(j) "Static water level" means the distance measured from an established datum at or above ground level to the water surface in a well which is not being pumped, which is not under the influence of pumping, and which is not flowing under artesian pressure.
(k) "Subpart H system~~s~~" **or "subpart H supply"** means **a** public water ~~systems~~ **supply** using surface water or ground water under the direct influence of surface water as a source.
(l) "Suction line" means a pipe or line that is connected to the inlet side of a pump or pumping equipment.
(m) "Supplier of water" or "supplier" means a person who owns or operates a public water supply, and includes a water hauler.
(n) "Surface water" means water that rests or flows on the surface of the ground.
(o) "SUVA" means specific ultraviolet absorption at 254 nanometers (nm), an indicator of the humic content of water. It is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (uv254) (in m-1) by its concentration of dissolved organic carbon (DOC) (in mg/l). Therefore, SUVA units are l/mg-m.
(p) "System with a single service connection" means a public water supply that supplies drinking water to consumers through a single service line.

R 325.10109 Definitions; T to Y.
Rule 109. As used in these rules:
(a) "Test well" means a well that is drilled on a site that has not been approved for use as a production well in accordance with the provisions of part 8 of these rules.
(b) "Too numerous to count" means that the total number of bacterial colonies is more than 200 on a 47-millimeter diameter membrane filter.
(c) "Total organic carbon~~ (TOC)~~" **or "TOC"** means total organic carbon in mg/l measured using heat, oxygen, ultraviolet irradiation, chemical oxidants, or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to 2 significant figures.

(d) "Total trihalomethanes" or "TTHM" means the sum of the concentration, in milligrams per liter, rounded to 2 significant figures, of all of the following:
(i) The trihalomethane compounds.
(ii) Trichloromethane (chloroform).
(iii) Dibromochloromethane.
(iv) Bromodichloromethane.
(v) Tribromomethane (bromoform).
(e) "Transient noncommunity water supply" or "transient noncommunity water system" means a noncommunity supply that does not meet the definition of nontransient noncommunity water supply in R 325.10106(h).
(f) "Treatment system" means a facility or structure and associated appurtenances installed for the purpose of treating drinking water before delivery to a distribution system.
(g) "Treatment technique" means a minimum treatment requirement or a necessary methodology or technology that is employed by a ~~supplier of water~~ **public water supply** for the control of the chemical, physical, biological, or radiological characteristics of the public water supply.
(h) "Trihalomethane" or "THM" means 1 of the family of organic compounds named as derivatives of methane, wherein 3 of the 4 hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.
(i) "Two-stage lime softening" means a process in which chemical addition and hardness precipitation occur in each of 2 distinct unit clarification processes in series prior to filtration.
(~~i~~**j**) "Unregulated contaminants" means a group of contaminants for which state drinking water standards have not been promulgated, but for which monitoring requirements apply.
(~~j~~**k**) "Variance" means an order, with appropriate conditions and compliance schedules and requirements, which is issued by the director to a ~~supplier of water~~ **public water supply** and which permits a public water supply to be in noncompliance with a state drinking water standard, including a specified treatment technique.
(~~k~~**l**) "VOC" means volatile organic chemical.
(~~l~~**m**) "Water hauler" means a person engaged in bulk vehicular transportation of water to other than the water hauler's own household which is intended for use or used for drinking or household purposes. Excluded from this definition are those persons providing water solely for employee use.
(~~m~~**n**) "Water transportation tank" means a tank that is associated with an over-the-road vehicle that is used for the bulk transport of drinking water.
(~~n~~**o**) "Waterworks system" or "system" means a system of pipes and structures through which water is obtained and distributed, including, but not limited to all of the following which are actually used or intended for use for the purpose of furnishing water for drinking or household purposes:
(i) Wells and well structures, intakes, and cribs.
(ii) Pumping stations.
(iii) Treatment plants.
(iv) Storage tanks.
(v) Pipelines and appurtenances.
(vi) A combination of the items specified in this subdivision.
(p) "Wholesale system" or "wholesale supply" means a public water supply that treats source water as necessary to produce finished water and then delivers some or all of

that finished water to another public water supply. Delivery may be through a direct connection or through the distribution system of 1 or more consecutive supplies.
(~~o~~**q**) "Year-round service" means the ability of a supplier of water to provide drinking water on a continuous basis to a living unit or facility.

R 325.10112 Adoption by reference.
Rule 112. The department adopts by reference the publication entitled "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NCRP Report 22, 1963, as referred to in parts 1 and 6 of these rules. The adopted material is available from the National Council on Radiation Protection **and Measurements** at the address in R 325.10116(c) for a cost of $20.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).

R 325.10113 Compliance with rules; guidance information.
Rule 113. ~~Suppliers of water~~ **Public water supplies** may use the information ~~set forth~~ in the following publications ~~for general~~ **as** guidance ~~in complying~~ **to comply** with ~~the provisions of~~ these rules:
(a) Recommended standards for water works, prepared by the Great Lakes--upper Mississippi river board of state sanitary engineers, is available for inspection at the department offices in Lansing~~ and Negaunee~~, and may be purchased at a cost of ~~$8.00~~ **$12.00** from the Health Education Services, P.O. Box 7126, Albany, New York 12224 **telephone 518-439-7286, Internet http://www.hes.org/**.
(b) The American water works association manual M 19, emergency planning for water ~~utility management, 1973~~ **utilities, 2001**, as referred to in part 23, is available for inspection at the department offices in Lansing~~ and Negaunee~~, and may be purchased at a cost of ~~$45.00~~ **$95.00** from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235, telephone 1-800-926-7337, Internet www.awwa.org.
(c) Suggested practices for waterworks design, construction, and operation for type I public water supplies, February 2008, prepared by the Michigan department of environmental quality, water bureau, is available for inspection at the department offices in Lansing and on the Internet at http://www.michigan.gov/deq.

R 325.10116 Addresses.
Rule 116. The following are addresses and contact information of the department and other organizations referred to in these rules:
(a) Department of Environmental Quality, ~~Drinking Water And Radiological Protection Division~~ **Water Bureau**, 525 West Allegan Street, Post Office Box ~~30630~~ **30273**, Lansing, MI 48909~~ 8130~~**-7773**, Telephone 517-241-1300. Internet address: http://www.~~deq.state.mi.us~~**michigan.gov/deq**.
(b) Superintendent of Documents, United States Government Printing Office, Post Office Box~~ 371954, Pittsburgh, PA 15250-7954~~ **979050, St. Louis, MO 63197-9000**, Telephone 202-512-1800. Internet address~~: http://www.access.gpo.gov/su_docs~~ **to download documents is http://www.gpoaccess.gov/index.html or to purchase documents online is http://bookstore.gpo.gov**.

(c) National Council On Radiation Protection **and Measurements**, 7910 Woodmont Avenue, Suite ~~800~~ **400**, Bethesda, Maryland 20814**-3095**, Telephone 301-657-2652. Internet address: ~~http://www.ncrp.com~~ **http://www.ncrponline.org/**.

PART 3. VARIANCES, EXEMPTIONS AND TREATMENT TECHNOLOGIES

R 325.10308b Best available technology.
Rule 308b. (1) The department identifies the following as the best technology, treatment technique, or other means generally available for achieving compliance with the MCL:
(a) For organic contaminants in R 325.10604b and R 325.10604d, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX), as listed in table 1 of this rule.

Table 1 Best available technologies for organic contaminants

Contaminant	GAC	PTA	OX
Alachlor	x		
Aldicarb	x		
Aldicarb sulfone	x		
Aldicarb sulfoxide	x		
Atrazine	x		
Benzene	x	x	
Benzo(a)pyrene	x		
Carbofuran	x		
Carbon tetrachloride	x	x	
Chlordane	x		
Dalapon	x		
2,4 D	x		
Di (2 ethylhexyl)adipate	x	x	
Di (2 ethylhexyl)phthalate	x		
Dibromochloropropane (DBCP)	x	x	
o Dichlorobenzene	x	x	
para Dichlorobenzene	x	x	
1,2 Dichloroethane	x	x	
1,1 Dichloroethylene	x	x	
cis 1,2 Dichloroethylene	x	x	
trans 1,2 Dichloroethylene	x	x	
Dichloromethane		x	
1,2 Dichloropropane	x	x	
Dinoseb	x		
Diquat	x		
Endothall	x		
Endrin	x		
Ethylbenzene	x	x	
Ethylene Dibromide (EDB)	x	x	

Glyphosate			x
Heptachlor	x		
Heptachlor epoxide	x		
Hexachlorobenzene	x		
Hexachlorocyclopentadiene	x	x	
Lindane	x		
Methoxychlor	x		
Monochlorobenzene	x	x	
Oxamyl (Vydate)	x		
Pentachlorophenol	x		
Picloram	x		
Polychlorinated biphenyls(PCB)	x		
Simazine	x		
Styrene	x	x	
2,3,7,8 TCDD (Dioxin)	x		
Tetrachloroethylene	x	x	
Toluene	x	x	
Toxaphene	x		
2,4,5 TP (Silvex)	x		
1,2,4 Trichlorobenzene	x	x	
1,1,1 Trichloroethane	x	x	
1,1,2 Trichloroethane	x	x	
Trichloroethylene	x	x	
Vinyl chloride		x	
Xylene	x	x	

(b) For inorganic contaminants in R 325.10604c, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 2 of this rule. The affordable technology, treatment technique, or other means available to supplies serving 10,000 or fewer people for achieving compliance with the maximum contaminant level for arsenic are listed in table 3 of this rule.

Table 2 Best available technologies for inorganic contaminants

Chemical name	Best available technologies
Antimony	2,7
Arsenic[4]	1,2, 5,6,7,9,11[5]
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6[2],7
Cyanide	5,7,10
Mercury	2[1],4,6[1],7[1]
Nickel	5,6,7

Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2[3],6,7,9
Thallium	1,5

[1] Best available technology only if influent Hg concentrations are 10 µg/l or less.
[2] Best available technology for chromium III only.
[3] Best available technology for selenium IV only.
[4] BATs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[5] To obtain high removals, iron to arsenic ratio shall be at least 20:1.

Key to best available technologies in table:
1 = activated alumina
2 = coagulation/filtration (not BAT for supplies with fewer than 500 service connections)
3 = direct and diatomite filtration
4 = granular activated carbon
5 = ion exchange
6 = lime softening (not BAT for supplies with fewer than 500 service connections)
7 = reverse osmosis
8 = corrosion control
9 = electrodialysis
10 = alkaline chlorination (pH greater than or equal to 8.5)
11 = oxidation/filtration

Table 3 Small supplies compliance technologies (SSCTs) for arsenic[1]

Small supply compliance technology	Affordable for listed small supply categories.[2]
Activated alumina (centralized)	All size categories.
Activated alumina (point-of-use)[3]	All size categories.
Coagulation/filtration	501-3,300, 3,301-10,000.
Coagulation-assisted microfiltration	501-3,300, 3,301-10,000.
Electrodialysis reversal	501-3,300, 3,301-10,000.
Enhanced coagulation/filtration	All size categories.
Enhanced lime softening (pH more than 10.5)	All size categories.
Ion exchange	All size categories.
Lime softening	501-3,300, 3,301-10,000.
Oxidation/filtration[4]	All size categories.
Reverse osmosis (centralized)	501-3,300, 3,301-10,000.
Reverse osmosis (point-of-use)[3]	All size categories.

[1] SSCTs for Arsenic V. Pre-oxidation may be required to convert Arsenic III to Arsenic V.
[2] Three categories of small ~~systems~~ **supplies** are: (i) those serving 25 or more, but fewer than 501, (ii) those serving more than 500, but fewer than 3,301, and (iii) those serving more than 3,300, but fewer than 10,001.
[3] POU shall not be used to obtain a variance.
[4] To obtain high removals, iron to arsenic ratio shall be at least 20:1.

(c) For radionuclide contaminants in R 325.10603, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 4 for all size supplies. The affordable technology, treatment technique, or other means available for achieving compliance with the maximum contaminant level are listed in table 5 for supplies serving 10,000 or fewer people as categorized in table 6.

Table 4 Best available technologies for radionuclide contaminants

Contaminant	Best available technologies.
Combined radium 226 and radium 228	Ion exchange, reverse osmosis, lime softening.
Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration.
Gross alpha particle activity (excluding radon and uranium)	Reverse osmosis.
Beta particle and proton radioactivity	Ion exchange, reverse osmosis.

Table 5 List of small supplies compliance technologies for radionuclides and limitations to use

Unit Technologies	Limitations (see footnotes)	Operator skill level required *	Raw water quality range and considerations.
1. Ion exchange	(a)	Intermediate	All ground waters.
2. Reverse osmosis (RO)	(b)	Advanced	Surface waters usually require pre-filtration.
3. Lime softening	(c)	Advanced	All waters.
4. Green sand filtration	(d)	Basic	
5. Co-precipitation and Barium sulfate	(e)	Intermediate to Advanced	Ground waters with suitable water quality.
6. Electrodialysis/ electrodialysis reversal	Not applicable	Basic to intermediate	All ground waters.
7. Pre-formed hydrous Manganese oxide filtration.	(f)	Intermediate	All ground waters.
8. Activated alumina	(a), (g)	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency.
9. Enhanced coagulation/ filtration	(h)	Advanced	Can treat a wide range of water qualities.

* An operator with a basic skill level has minimal experience in the water treatment field and can perform the necessary system operation and monitoring if provided with proper

instruction. The operator is capable of reading and following explicit directions. An operator with an intermediate skill level understands the principles of water treatment and has a knowledge of the regulatory framework. The operator is capable of making system changes in response to source water fluctuations. An operator with an advanced skill level possesses a thorough understanding of the principles of system operation. The operator is knowledgeable in water treatment and regulatory requirements. The operator may, however, have advanced knowledge of only the particular treatment technology. The operator seeks information, remains informed, and reliably interprets and responds to water fluctuations and system intricacies.

Limitations Footnotes: Technologies for Radionuclides:
a The regeneration solution contains high concentrations of the contaminant ions. Disposal options shall be carefully considered before choosing this technology.
b Reject water disposal options shall be carefully considered before choosing this technology.
c The combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small surface water systems.
d Removal efficiencies may vary depending on water quality.
e This technology may be very limited in application to small systems. Since the process requires static mixing, detention basins, and filtration, it is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.
f This technology is most applicable to small systems that already have filtration in place.
g Handling of chemicals required during regeneration and pH adjustment may be too difficult for small systems without an adequately trained operator.
h Assumes modification to a coagulation/filtration process already in place.

Table 6 Compliance technologies by supply size category for radionuclide requirements

Contaminant	Compliance technologies* for supply size categories (population served)		
	25-500	501-3,300	3,301 – 10,000
1. Combined radium 226 and radium 228	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7	1, 2, 3, 4, 5, 6, 7
2. Gross alpha particle activity	2	2	2
3. Beta particle activity and photon activity	1, 2	1, 2	1, 2
4. Uranium	1, 8, 9	1, 2, 3, 8, 9	1, 2, 3, 8, 9

* Numbers correspond to those technologies listed in Table 5 of this rule.

~~(d) For disinfection byproducts under R 325.10610(1), the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table 7 of this rule.~~

~~Table 7 Best available technologies for disinfection byproducts~~

~~Disinfection byproduct~~	~~Best available technology.~~
~~TTHM or HAA5~~	~~Enhanced coagulation or enhanced softening~~

	~~or GAC10, with chlorine as the primary and residual disinfectant.~~
~~Bromate~~	~~Control of ozone treatment process to reduce production of bromate.~~
~~Chlorite~~	~~Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.~~

~~(e) The best available technologies, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels under R 325.10610a(1) are control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.~~

(2) The department shall require ~~suppliers of~~ community water ~~systems~~ **supplies** and nontransient, noncommunity water ~~systems~~ **supplies** to employ a treatment method identified in subrule (1) of this rule as a condition for granting a variance, except as provided in subrule (3) of this rule. If, after the treatment method is installed in the system, the ~~system~~ **supply** cannot meet the MCL, then the ~~system~~ **supply** shall be eligible for a variance ~~pursuant to~~ **under** this part and section 20 of the act.

(3) If a ~~supplier of water~~ **supply** demonstrates through comprehensive engineering assessments, which may include pilot plant studies, that the treatment methods identified in subrule (1) of this rule may only achieve a de minimis reduction in contaminants, then the department may issue a schedule of compliance that requires the ~~supplier of water~~ **supply** being granted the variance to examine other treatment methods as a condition of obtaining the variance.

(4) If the department determines that a treatment method identified in subrule (3) of this rule is technically feasible, then the department may require the ~~supplier of water~~ **supply** to use that treatment method in connection with a compliance schedule issued ~~pursuant to~~ **under** section 20 of the act. The department's determination shall be based on studies by the ~~supplier of water~~ **supply** and other relevant information.

(5) The department may require a community or noncommunity supply to use point-of-use devices, point-of-entry devices, or other means as a condition of granting a variance or an exemption from the requirements of R 325.10603, R 325.10604b, R 325.10604c, or R 325.10604d, to avoid an unreasonable risk to health. The department may require a public water ~~system~~ **supply** to use point-of-use devices or other means, but not point-of-entry devices, as a condition for granting an exemption from corrosion control treatment requirements for lead and copper in R 325.10604f(2) and (3) to avoid an unreasonable risk to health. The department may require a public water ~~system~~ **supply** to use point-of-entry devices as a condition for granting an exemption from the source water and lead service line replacement requirements for lead and copper under R 325.10604f(4) and (5) to avoid an unreasonable risk to health, provided the supply demonstrates that the device will not cause an increased corrosion of lead and copper bearing materials located between the device and the tap that may increase contaminant levels at the tap.

(6) Community or noncommunity water supplies that use point-of-use or point-of-entry devices under this rule shall meet the conditions in R 325.10313.

R 325.10313 Criteria for water supplies using POE, or POU, or both.

Rule 313. (1) Community and noncommunity water supplies shall not use point-of-use devices (POU) or point-of-entry devices (POE) except as required by the department under R 325.10308b or under all of the following provisions with department approval:
(a) Community water supplies may use POE to comply with the maximum contaminant level or treatment technique for organic, inorganic, and radiological contaminants.
(b) Noncommunity water supplies may use POU, or POE, or both, to comply with maximum contaminant levels or treatment techniques for organic and inorganic contaminants.
(c) An alternative source of water that meets state drinking water standards is not available.
(2) Supplies that use POU or POE, or both, shall meet all of the following requirements:
(a) The supply shall operate and maintain the POU, or POE, or both.
(b) Before POU, or POE, or both, are installed, the supply shall obtain department approval of a monitoring plan that ensures that the devices provide health protection equivalent to that provided by central water treatment. If the POU, or POE, or both, are being used to comply with maximum contaminant levels or treatment techniques, then "equivalent" means that the water shall meet all state drinking water standards and shall be of acceptable quality similar to water distributed by a well-operated central treatment plant. At a minimum, the monitoring plan shall include all of the following:
(i) Contaminants and parameters to be analyzed.
(ii) Physical measurements and observations, such as total flow treated and mechanical condition of the treatment equipment.
(iii) Location of sampling sites.
(iv) Frequency of sampling. Approximately 10% of the treatment units shall be sampled at regular intervals so that all the POE or POU are monitored at least as frequently as required in part 7 for a particular contaminant. For example, for a contaminant that is required to be sampled every 3 years, 10% of the POE or POU shall be monitored quarterly so that in 3 years time all of the POE or POU have been monitored. The department may approve an alternate frequency that better represents the rate of degradation of the POE or POU.
(c) Before POU, or POE, or both, are installed, the supply shall obtain department approval of a technology plan that ensures that effective technology is applied and that the microbiological safety of the water is maintained at all times. At a minimum, the technology plan shall include all of the following:
(i) The POU, or POE, or both, shall be equipped with mechanical warnings to ensure that customers are automatically notified of operational problems.
(ii) If a specific type of POU or POE has been independently certified to comply with the maximum contaminant level or treatment technique in accordance with the American national standards institute/national sanitation foundation standards 44, 53, 58, or 62, as adopted by reference in this paragraph, then individual units of that type shall be used to comply with the maximum contaminant level or treatment technique. A supply may use an alternate type of POU or POE if the supply demonstrates to the department, using pilot plant studies or other means, that the alternative POU or POE consistently complies with the maximum contaminant level or treatment technique and the department approves the use of the POU or POE. ~~The department adopts by reference ANSI/NSF standards 44-2002 (February 8, 2002) as amended by 44-2002 Addendum 1.0-2002 (July 31, 2002), 53-2002e (November 14, 2003), 58-2003 (February 2, 2004), and 62-1999 (September 1, 1999) as amended by 62-1999 Addendum 1.0-2002 (July 31, 2002). The adopted material is available from NSF at 789 North Dixboro Road, Ann Arbor, MI 48105, telephone 734-769-8010, Internet address http//www.nsf.org for a cost at the time of adoption of these rules of $150.00 for 44-2002, $45.00 for 44-2002 Addendum 1.0-2002, $150.00 for 53-2002e, $150.00 for 58-~~

~~2003, $150 for 62-1999, and $45.00 for 62-1999 Addendum. The adopted material is available for inspection at the offices of the department at the address in R 325.10116(a).~~ **The department adopts by reference ANSI/NSF standards 44-2007 (October 15, 2007), 53-2007a (July 10, 2007), as amended by 53-2007a Addendum 1.0 (October 22, 2007), 58-2007 (October 22, 2007), and 62-2007 (October 15, 2007). The adopted material is available from NSF at 789 North Dixboro Road, Ann Arbor, MI 48105, telephone 734-769-8010, Internet address http//www.nsf.org for a cost at the time of adoption of these rules of $160.00 for 44-2007, $160.00 for 53-2007a, $45.00 for 53-2007a Addendum 1.0, $160.00 for 58-2007, and $160 for 62-2007. The adopted material is available for inspection at the offices of the department at 525 W Allegan Street, Lansing, Michigan.**
(iii) The design and application of the POU, or POE, or both, shall consider the potential for increasing concentrations of heterotrophic bacteria in water treated with activated carbon. Frequent backwashing, post-contactor disinfection, and heterotrophic plate count monitoring may ensure that the microbiological safety of the water is not compromised.
(d) The supply shall demonstrate that buildings connected to the system have sufficient POU, or POE, or both, that are properly installed, maintained, and monitored such that all of consumers shall be protected.
(e) If the POU, or POE, or both, are used to meet an MCL or treatment technique, then the supply shall replace or repair the POU or POE when the contaminant for which the device is intended to control is above the maximum contaminant level in a confirmed sample.
(3) Compliance with the maximum contaminant level shall be determined based on the analytical results obtained at each POU or POE, ~~otherwise called~~ **also known as** "sampling point". Compliance determination shall be made under R 325.10604b(2) for volatile organic contaminants, R 325.10604c(2) for inorganic contaminants, or R 325.10604d(2) for synthetic organic chemicals.
(4) Supplies that violate the MCL shall notify the department under part 7 of these rules and shall notify the public under part 4 of these rules. The supply may limit the distribution of the public notice to only persons served by the POU or POE that is out of compliance.

PART 4. PUBLIC NOTIFICATION AND PUBLIC EDUCATION

R 325.10401 Purpose.
Rule 401. The purpose of this part is to prescribe requirements of ~~suppliers of water~~ **public water supplies** to provide public notification to persons served by a public water ~~system~~ **supply** when the public water ~~system~~ **supply** is not in compliance with a state drinking water standard, a monitoring requirement, or the requirements of a compliance schedule prescribed by a variance or exemption or while a variance or exemption is in effect. This part also prescribes requirements for public education when a community or nontransient noncommunity water ~~system~~ **supply** exceeds the lead action level based on tap water samples collected under R 325.10710a. This part also prescribes requirements for consumer confidence reports (CCR) and annual water quality reports. **For the purpose of this part applicable public water supplies are also considered "water supplies" or "supplies."**

R 325.10401a General public notification requirements.
Rule 401a. (1) Each ~~supplier of a~~ community water ~~system~~ **supply**, nontransient noncommunity water ~~system~~ **supply**, or transient noncommunity water ~~system~~ **supply** shall give notice for violations of the maximum contaminant level (MCL), maximum residual

disinfection level (MRDL), treatment technique (TT), monitoring requirements, testing procedures in these rules, and for other situations, as listed in the following provisions:
(a) Violations and other situations requiring public notice, including all of the following:
(i) Failure to comply with an applicable maximum contaminant level (MCL) or maximum residual disinfectant level (MRDL).
(ii) Failure to comply with a prescribed treatment technique (TT).
(iii) Failure to perform water quality monitoring, as required by part 7 of these rules.
(iv) Failure to comply with testing procedures as prescribed by part 6 of these rules.
(b) Variance and exemptions under part 3 of these rules, including both of the following:
(i) Operation under a variance or an exemption.
(ii) Failure to comply with the requirements of a schedule that has been set under a variance or exemption.
(c) Special public notices, including all of the following:
(i) Occurrence of a waterborne disease outbreak or other waterborne emergency.
(ii) Exceedance of the nitrate MCL by noncommunity water ~~systems~~ **supplies**, where granted permission by the department.
(iii) Fluoride level above ~~2~~ **2.0** mg/l as specified in R 325.10408a.
(iv) Availability of unregulated contaminant monitoring data.
(v) Other violations and situations which are determined by the department to require a public notice under this part and which are not already listed in table 1 of this rule.
The tier assignment for each specific violation or situation requiring a public notice is identified in table 1 of this rule. **Community and noncommunity water supplies are also considered "water supplies" or "supplies" in this rule, R 325.10402 to R 325.10407 and R 325.10408a to R 325.10409.**
(2) Public notice requirements are divided into 3 tiers to take into account the seriousness of the violation or situation and of the potential adverse health effects that may be involved. The public notice requirements for each violation or situation listed in subrule (1) of this rule are determined by the tier to which the violation or situation is assigned. The definition of each tier is provided in the following provisions:
(a) Tier 1 public notice is required for violations and situations that have significant potential to have serious adverse effects on human health as a result of short-term exposure.
(b) Tier 2 public notice is required for all other violations and situations that have potential to have serious adverse effects on human health.
(c) Tier 3 public notice is required for all other violations and situations not included in tier 1 and tier 2.
The tier assignment for each specific violation or situation is identified in table 1 of this rule.
(3) ~~Suppliers~~ **Supplies** shall provide public notice to the following:
(a) Each ~~supplier~~ **supply** shall provide public notice to persons served by the ~~system~~ **supply** as specified in this part. ~~Suppliers~~ **Supplies** that sell or otherwise provide drinking water to other public water ~~systems~~ **supplies**, such as to consecutive ~~systems~~ **supplies**, shall give public notice to the ~~supplier of the~~ consecutive ~~system~~ **supply**. The consecutive ~~system~~ **supply** shall provide public notice to the persons it serves.
(b) If a public water ~~system~~ **supply** has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, then the department may grant permission, which shall be in writing, to the ~~supplier~~ **supply** to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance. To be physically separated, the ~~supplier~~ **supply** shall show that the

affected portion of the distribution system is separated from other parts of the distribution system with no interconnections. To be considered hydraulically separated, the ~~supplier~~ **supply** shall show that the design of the distribution system or the system operation, or both, created a situation where water in the affected portion is effectively isolated from the water in all other parts of the distribution system because of projected water flow patterns and water pressure zones.

(4) The ~~supplier~~ **supply**, within 10 days of completing the public notification requirements under this part for the initial public notice and applicable repeat notices, shall submit to the department a certification that it fully complied with the public notification regulations. The ~~supplier~~ **supply** shall include with this certification a representative copy of each type of notice distributed, published, posted, and made available to the persons served by the ~~system~~ **supply** and to the media.

Table 1 Violations and other situations requiring public notice

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
I. Violations of MCL, MRDL, treatment technique, monitoring and reporting, and testing procedure requirements:				
A. Microbiological contaminants				
Total coliform	2	R 325.10602(a) and (b)	3	R 325.10704 **to** ~~R 325.10705~~ ~~R 325.10706~~ ~~R 325.10707~~ R 325.10707a R 325.10702(2) R 325.10707b(4)
Fecal coliform/E. coli	1	R 325.10602(c)	1, 3 [2]	R 325.10704(3) R 325.10707b(4)
Turbidity (for TT violations resulting from a single exceedance of maximum allowable turbidity level)	2, 1 [3]	R 325.10611b	3	R 325.10605 R 325.10720(2)(a) and (b)
Violations, other than violations resulting from single exceedance of max. allowable turbidity level (TT)	2	R 325.10611, R 325.10611a, and R 325.10611b	3	R 325.10605 R 325.10720(2)(c) and (d)
Violations of disinfection profiling and benchmarking	N/A	N/A	3	R 325.10722

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Violations of filter backwash recycling provisions	2	R 325.10611c	3	R 325.150~~6(7)~~
Violations of enhanced treatment for cryptosporidium	**2**	**R 325.10611e to R 325.10611m**	**2**	**Failure to sample any 3 months under 40 CFR 141.701(c) as adopted by reference in R 325.10720b.**
			3	**40 CFR 141.701 to 141.705, as adopted by reference in R 325.10720b, except 141.701(c)** **R 325.10720c to R 325.10720d**
Violations of rules for ground water supplies subject to R 325.10612	**2**	**R 325.10612b**	**3**	**R 325.10739(7)** **R 325.10739a(5)**
B. Inorganic chemicals (IOC)				
Antimony	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Arsenic	2	R 325.10604c(1)	3	R 325.10710(4) and (5) R 325.**10**605
Asbestos (fibers longer than 10 µm)	2	R 325.10604c(1)	3	R 325.10710(4), (6)
Barium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Beryllium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Cadmium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Chromium (total)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Cyanide (free)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Fluoride	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Mercury (inorganic)	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Nitrate (as nitrogen)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3), (4), (7), and (9)(b)
Nitrite (as nitrogen)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3), (4), (8), and (9)(b)
Total nitrate and nitrite (as nitrogen)	1	R 325.10604c(1)	3	R 325.10710(4)
Selenium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
Thallium	2	R 325.10604c(1)	3	R 325.10710(4) and (5)
C. Lead and copper (action level for lead is 0.015 mg/l, for copper is 1.3 mg/l)				
Lead and copper rule (TT)	2	R 325.10604f(1) – (5) ~~and~~ R 325.10410**(2) and (3)**	3	R 325.10710a to R 325.10710c and R 325.10605
D. Synthetic organic chemicals (SOC)				
2,4-D	2	R 325.10604d(1)	3	R 325.10717
2,4,5-TP (silvex)	2	R 325.10604d(1)	3	R 325.10717
Alachlor	2	R 325.10604d(1)	3	R 325.10717
Atrazine	2	R 325.10604d(1)	3	R 325.10717
Benzo(a)pyrene (PAHs)	2	R 325.10604d(1)	3	R 325.10717
Carbofuran	2	R 325.10604d(1)	3	R 325.10717
Chlordane	2	R 325.10604d(1)	3	R 325.10717
Dalapon	2	R 325.10604d(1)	3	R 325.10717
Di (2-ethylhexyl) adipate	2	R 325.10604d(1)	3	R 325.10717
Di (2-ethylhexyl) phthalate	2	R 325.10604d(1)	3	R 325.10717
Dibromochloropropane	2	R 325.10604d(1)	3	R 325.10717
Dinoseb	2	R 325.10604d(1)	3	R 325.10717
Dioxin (2,3,7,8-TCDD)	2	R 325.10604d(1)	3	R 325.10717
Diquat	2	R 325.10604d(1)	3	R 325.10717
Endothall	2	R 325.10604d(1)	3	R 325.10717
Endrin	2	R 325.10604d(1)	3	R 325.10717
Ethylene dibromide	2	R 325.10604d(1)	3	R 325.10717

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Glyphosate	2	R 325.10604d(1)	3	R 325.10717
Heptachlor	2	R 325.10604d(1)	3	R 325.10717
Heptachlor epoxide	2	R 325.10604d(1)	3	R 325.10717
Hexachlorobenzene	2	R 325.10604d(1)	3	R 325.10717
Hexachlorocyclo-pentadiene	2	R 325.10604d(1)	3	R 325.10717
Lindane	2	R 325.10604d(1)	3	R 325.10717
Methoxychlor	2	R 325.10604d(1)	3	R 325.10717
Oxamyl (vydate)	2	R 325.10604d(1)	3	R 325.10717
Pentachlorophenol	2	R 325.10604d(1)	3	R 325.10717
Picloram	2	R 325.10604d(1)	3	R 325.10717
Polychlorinated biphenyls [PCBs]	2	R 325.10604d(1)	3	R 325.10717
Simazine	2	R 325.10604d(1)	3	R 325.10717
Toxaphene	2	R 325.10604d(1)	3	R 325.10717
E. Volatile organic chemicals (VOC)				
Benzene	2	R 325.10604b(1)	3	R 325.10716
Carbon tetrachloride	2	R 325.10604b(1)	3	R 325.10716
Chlorobenzene (monochloro-benzene)	2	R 325.10604b(1)	3	R 325.10716
O-dichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
P-dichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
1,2-dichloroethane	2	R 325.10604b(1)	3	R 325.10716
1,1-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Cis-1,2-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Trans-1,2-dichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Dichloromethane	2	R 325.10604b(1)	3	R 325.10716
1,2-dichloropropane	2	R 325.10604b(1)	3	R 325.10716
Ethylbenzene	2	R 325.10604b(1)	3	R 325.10716
Styrene	2	R 325.10604b(1)	3	R 325.10716
Tetrachloro-ethylene	2	R 325.10604b(1)	3	R 325.10716
Toluene	2	R 325.10604b(1)	3	R 325.10716
1,2,4-trichlorobenzene	2	R 325.10604b(1)	3	R 325.10716
1,1,1-trichloroethane	2	R 325.10604b(1)	3	R 325.10716
1,1,2-trichloroethane	2	R 325.10604b(1)	3	R 325.10716
Trichloroethylene	2	R 325.10604b(1)	3	R 325.10716
Vinyl chloride	2	R 325.10604b(1)	3	R 325.10716
Xylenes (total)	2	R 325.10604b(1)	3	R 325.10716
F. Radioactive contaminants				

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Beta/photon emitters	2	R 325.10603(2)(c)	3	R 325.10605 R 325.10725 R 325.10730
Alpha emitters (gross alpha)	2	R 325.10603(2)(b)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729
Combined radium (226 & 228)	2	R 325.10603(2)(a)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729
Uranium (pCi/L)	2	R 325.10603(2)(d)	3	R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729
G. Disinfection byproducts (DBP), byproduct precursors, disinfectant residuals. Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBP). The department sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THM) and haloacetic acids (HAA).~~5~~ **See R 325.10610 to R 325.10610d, and R 325.10719e to R 325.10719n for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.**				
Total trihalomethanes (TTHM)	2	R 325.10610**(2)** R 325.10610b(2)(a)	3	**R 325.10610d,** ~~R 325.10719a to~~ R 325.10719e(1) and (2)(a)**, and** **R 325.10719g to R 325.10719n**
Haloacetic acids (HAA)	2	R 325.10610 R 325.10610b(2)(a)	3	**R 325.10610d,** R 325.10719e(1) and (2)(a)**, and** **R 325.10719g to R 325.10719n**
Bromate	2	R 325.10610 R 325.10610b(2)(b)	3	R 325.10719e(1) and (2)(c)
Chloramine (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) and (3)

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Chlorine (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) and (3)
Chlorite	2	R 325.10610 R 325.10610b(2)(c)	3	R 325.10719e(1) and (2)(b)
Chlorine dioxide (MRDL), where any 2 consecutive daily samples at entrance to distribution system only are above MRDL	2	R 325.10610a R 325.10610b(3)(b)(ii)	2 *~~6~~, 3	R 325.10719e(1), (3)(b)(i) and (iii)
	*** Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system is a tier 2 violation.**			
Chlorine dioxide (MRDL), where sample(s) in distribution system the next day are also above MRDL	1 *~~7~~	R 325.10610a R 325.10610b(3)(b)(i)	1	R 325.10719e(1), (3)(b)(ii) and (iii)
	*** If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and 1 or more samples taken in the distribution system the next day exceed the MRDL, tier 1 notification is required. Failure to take the required samples in the distribution system after the MRDL is exceeded at the entry point also triggers tier 1 notification.**			
Control of DBP precursors—TOC (TT)	2	R 325.10610b(4) R 325.10610c	3	R 325.10719e(1) and (4)
Bench marking and disinfection profiling	N/A	N/A	3	R 325.10722
Development of monitoring plan	N/A	N/A	3	R 325.10719e(5)
H. Other treatment techniques				
Acrylamide (TT)	2	R 325.10604e	N/A	N/A
Epichlorohydrin (TT)	2	R 325.10604e	N/A	N/A
II. Other monitoring:				
Unregulated contaminants	N/A	N/A	3	~~R 325.10717b~~ **40 CFR 141.40** [5]
Nickel	N/A	N/A	3	R 325.10710(4), (5), and (9)
III. Public notification for variances and exemptions:				
Operation under a variance or exemption	3	R 325.10302 and R 325.10312	N/A	N/A
Violation of conditions of a variance or exemption	2	R 325.10302 and R 325.10312	N/A	N/A
IV. Other situations requiring public notification:				

Contaminant	MCL/MRDL/TT violations [1]		Monitoring & testing procedure violations	
	Tier of public notice required	Citation	Tier of public notice required	Citation
Fluoride level above ~~2~~ **2.0** mg/l	3	R 325.10408a(1)	N/A	N/A
Exceedance of nitrate MCL for noncommunity ~~systems~~ **supplies**, as allowed by the department	1	R 325.10604c(3)	N/A	N/A
Availability of unregulated contaminant monitoring data	3	R 325.10407	N/A	N/A
Waterborne disease outbreak	1	R 325.10734(4)	N/A	N/A
Source water sample positive for Fecal Indicator: E.coli, enterococci, or coliphage	**1**	**R 325.10739(6)**	**N/A**	**N/A**
Other waterborne emergencies and other situations as determined by the department	1 or 2 or 3 ~~*[8]~~	N/A	N/A	N/A
	*** Waterborne emergencies require a tier 1 public notice. The department may place other situations in any tier it determines appropriate, based on threat to public health.**			

[1] MCL - Maximum contaminant level, MRDL - maximum residual disinfectant level, TT - treatment technique.

[2] Failure to test for fecal coliform or E. coli is a tier 1 violation if testing is not done after any repeat sample tests positive for coliform. All other total coliform monitoring and testing procedure violations are tier 3.

[3] ~~Systems~~ **Supplies** with treatment technique violations involving a single exceedance of a maximum turbidity limit under R 325.10611b(1) are required to initiate consultation with the department within 24 hours after learning of the violation. Based on this consultation, the department may subsequently decide to elevate the violation to tier 1. If a ~~system~~ **supply** is unable to make contact with the department in the 24-hour period, the violation is automatically elevated to tier 1.

[4] Failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL is a tier 1 violation. Other monitoring violations for nitrate are tier 3.

[5] **Title 40 CFR Part 141 Section 40, being 40 CFR 141.40, (2008), which pertains to Unregulated Contaminant Monitoring, is contained in Title 40 CFR Parts 136 to 149 and is available for purchase for $64.00 from the superintendent of documents at the address in R 325.10116(b). The material is available for inspection, or a copy is available at no cost from the offices of the department at the address in R 325.10116(a).** ~~See R 325.10610, R 325.10610a, and R 325.10719e for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.~~

[6] ~~Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system is a tier 2 violation.~~

[7] ~~If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and 1 or more samples taken in the distribution system the next day exceed the MRDL, tier 1 notification is required. Failure to take the required samples in the distribution system after the MRDL is exceeded at the entry point also triggers tier 1 notification.~~

[8] ~~Waterborne emergencies require a tier 1 public notice. The department may place other situations in any tier it determines appropriate, based on threat to public health.~~

R 325.10402 Tier 1 public notice; form, manner, and frequency of notice.
Rule 402. (1) A tier 1 public notice is required for all of the following violations and situations **in a community or noncommunity water supply that is subject to R 325.10401a**:
(a) Violation of the MCL for total coliforms when fecal coliform or E. coli are present in the water distribution system as specified in R 325.10602, or when the ~~supplier~~ **water supply** fails to test for fecal coliforms or E. coli when a repeat sample tests positive for coliform as specified in R 325.10707.
(b) Violation of the MCL for nitrate, nitrite, or total nitrate and nitrite, as defined in R 325.10604c, or when the ~~supplier~~ **water supply** fails to take a confirmation sample within 24 hours of the ~~supplier's~~ **water supply's** receipt of the first sample result showing an exceedance of the nitrate or nitrite MCL, as specified in R 325.10710(9)(b).
(c) Exceedance of the nitrate MCL by noncommunity water ~~systems~~ **supplies**, where permitted to exceed the MCL by the department, as required under R 325.10408b.
(d) Violation of the MRDL for chlorine dioxide, as defined in R 325.10610a(1), when 1 or more samples taken in the distribution system the day following an exceedance of the MRDL at the entrance of the distribution system exceed the MRDL, or when the ~~supplier~~ **water supply** does not take the required samples in the distribution system, as specified in R 325.10610b(3)(b).
(e) Violation of the treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit under R 325.10611b(1) as identified in table 1 of R 325.10401a, where the department determines after consultation that a tier 1 notice is required or where consultation does not take place within 24 hours after the ~~supplier~~ **supply** learns of the violation.
(f) Occurrence of a waterborne disease outbreak or other waterborne emergency, such as a failure or significant interruption in key water treatment processes, a natural disaster that

disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination.
(g) **Detection of E. coli, enterococci, or coliphage in source water samples as specified in R 325.10739(1) to (2).**
(h) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the department either in these rules or on a case-by-case basis.
The tier assignment for each specific violation or situation is listed in table 1 of R 325.10401a.
(2) A tier 1 public notice shall be provided ~~pursuant to~~ **under** all the following provisions:
(a) ~~Suppliers~~ **Water supplies** shall provide the public notice as soon as practical but not later than 24 hours after the ~~supplier~~ **supply** learns of the violation or situation.
(b) The ~~supplier~~ **water supply** shall initiate consultation with the department as soon as practical, but not later than 24 hours after the ~~supplier~~ **supply** learns of the violation or situation, to determine additional public notice requirements.
(c) The ~~supplier~~ **water supply** shall comply with additional public notification requirements, including repeat notices or direction on the duration of the posted notices, established as a result of consultation with the department. These additional requirements may include the timing, form, manner, frequency, and content of applicable repeat notices, and other actions designed to reach all persons served.
(3) ~~Suppliers~~ **Water supplies** shall provide the notice within 24 hours in a form and manner reasonably calculated to reach all persons served. The form and manner used by the ~~supplier~~ **supply** are to fit the specific situation, but shall be designed to reach residential, transient, and nontransient users of the ~~system~~ **supply**. ~~In order to~~ **To** reach all persons served, ~~suppliers~~ **supplies** shall use, at a minimum, 1 or more of the following forms of delivery:
(a) Appropriate broadcast media, such as radio and television.
(b) Posting of the notice in conspicuous locations throughout the area served by the ~~system~~ **supply**.
(c) Hand delivery of the notice to persons served by the system.
(d) Another delivery method approved, in writing, by the department.

R 325.10403 Tier 2 public notice; form, manner, and frequency of notice.
Rule 403. (1) A tier 2 public notice is required for all of the following violations and situations **in a community or noncommunity water supply that is subject to R 325.10401a**:
(a) All violations of the MCL, MRDL, and treatment technique requirements, except where a tier 1 notice is required under R 325.10402(1) or where the department determines that a tier 1 notice is required.
(b) Violations of the monitoring and testing procedure requirements, where the department determines that a tier 2 rather than a tier 3 public notice is required, taking into account potential health impacts and persistence of the violation.
(c) Failure to comply with the terms and conditions of a variance or exemption in place.
The tier assignment for each specific violation or situation is listed in table 1 of R 325.10401a.

(d) Failure to take corrective action or failure to maintain at least 4-log treatment of viruses, using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal, before or at the first customer under R 325.10612a(1).

(2) A tier 2 public notice shall be provided ~~pursuant to~~ **under** all the following provisions:

(a) ~~Suppliers~~ **Supplies** shall provide the public notice as soon as practical, but not later than 30 days after the ~~supplier~~ **supply** learns of the violation or situation. If the public notice is posted, the notice shall remain in place for as long as the violation or situation exists, but not for less than 7 days, even if the violation or situation is resolved. The department may, on a case-by-case basis, allow additional time for the initial notice of up to 3 months from the date the ~~supplier~~ **supply** learns of the violation or situation. Circumstances that may warrant an extension include~~, but are not limited to,~~ coordination with billing cycles for mailing purposes and violations that were quickly resolved and no longer pose any risk to persons served. The department shall not grant an extension to the 30-day deadline for an unresolved violation posing potential risk from short-term exposure. Extensions granted by the department shall be in writing.

(b) The ~~supplier~~ **supply** shall repeat the notice every 3 months as long as the violation or situation exists, unless the department determines that appropriate circumstances warrant a different repeat notice frequency. The repeat notice shall not be given less frequently than once per year. The department shall not allow less frequent repeat notice for an MCL violation of total coliform under R 325.10602 or a treatment technique violation of filtration or disinfection under R 325.10611, R 325.10611a, or R 325.10611b. The department may, on a case-by-case basis, reduce the repeat notice frequency for other ongoing violations requiring a tier 2 repeat notice. Circumstances that may warrant a reduction in frequency include~~, but are not limited to,~~ coordination with billing cycles for mailing purposes and consolidating notices for violations and situations occurring within a given year into an annual notice to provide for more effective communication with the consumer. Department determinations allowing repeat notices to be given less frequently than once every 3 months shall be in writing.

(c) For the turbidity violations specified in this subdivision, supplie~~r~~s shall consult with the department as soon as practical but not later than 24 hours after the ~~supplier~~ **supply** learns of the violation, to determine whether a tier 1 public notice under R 325.10402(1) is required to protect public health. When consultation does not take place within the 24-hour period, the ~~supplier~~ **supply** shall distribute a tier 1 notice of the violation within the next 24 hours, which shall be not more than 48 hours after the ~~supplier~~ **supply** learns of the violation, and shall follow the requirements under R 325.10402(2) and (3). Consultation with the department is required for violations of the treatment technique requirement under R 325.10611 resulting from a single exceedance of the maximum allowable turbidity limit under R 325.**10**611b.

(3) ~~Suppliers~~ **Supplies** shall provide the initial tier 2 public notice and applicable repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of ~~system~~ **supply**, but it shall, at a minimum, meet all of the following requirements:

(a) Unless directed otherwise by the department, in writing, ~~suppliers of~~ community water ~~systems~~ **supplies** shall provide notice by using both of the following forms of delivery:

(i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the ~~supplier~~ **supply**.

(ii) Other methods reasonably calculated to reach other persons regularly served by the ~~system~~ **supply**, if they would not normally be reached by the notice required in paragraph (i) of this subdivision. Other persons served may include those who do not pay water bills or do not have service connection addresses, such as house renters, apartment dwellers, university students, nursing home patients, and prison inmates. Other methods may include any of the following:
(A) Publication in a local newspaper.
(B) Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as apartment building owners or large private employers.
(C) Posting in public places served by the system or on the internet.
(D) Delivery to community organizations.
(b) Unless directed otherwise by the department, in writing, ~~suppliers of~~ noncommunity water ~~systems~~ **supplies** shall use both of the following forms of delivery:
(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or mailing or directly delivering to each customer and service connection, where known.
(ii) Other methods reasonably calculated to reach other persons served by the system if they would not normally be reached by the notice required in paragraph (i) of this subdivision. Other persons served may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include any of the following:
(A) Publication in a local newspaper or newsletter distributed to customers.
(B) Use of e-mail to notify employees or students.
(C) Delivery of multiple copies in central locations, such as community centers.

R 325.10404 Tier 3 public notice; form, manner, and frequency of notice.
Rule 404. (1) A tier 3 public notice is required for all of the following violations and situations listed in this subrule **in a community or noncommunity water supply that is subject to R 325.10401a**:
(a) Monitoring violations under part 7 of these rules, except where a tier 1 notice is required under R 325.10402(1) or where the department determines that a tier 2 notice is required.
(b) Failure to comply with a testing procedure established in part 6 of these rules, except where a tier 1 notice is required under R 325.10402(1) or where the department determines that a tier 2 notice is required.
(c) Operation under a variance or exemption granted under section 20 of the safe drinking water act, 1976 PA 399, ~~MCL 325.1001 et seq.~~ **MCL 325.1020** and part 3 of these rules.
(d) Availability of unregulated contaminant monitoring results, as required under R 325.10407.
(e) Fluoride level above ~~2~~ **2.0** mg/l as specified in R 325.10408a.
The tier assignment for each specific violation or situation is listed in table 1 of R 325.10401a.
(2) A tier 3 public notice shall be provided ~~pursuant to~~ **under** all the following provisions:
(a) ~~Suppliers~~ **Supplies** shall provide the public notice not later than 1 year after the ~~supplier~~ **supply** learns of the violation or situation or begins operating under a variance or exemption. Following the initial notice, the ~~supplier~~ **supply** shall repeat the notice annually for as long as the violation, variance, exemption, or other situation exists. If the public notice is posted, the notice shall remain in place for as long as the violation, variance, exemption, or other situation exists, but for not less than 7 days, even if the violation or situation is resolved.

(b) Instead of individual tier 3 public notices, a ~~supplier~~ **supply** may use an annual report detailing all violations and situations that occurred during the previous 12 months, as long as the timing requirements of subdivision (a) of this subrule are met.
(3) ~~Suppliers~~ **Supplies** shall provide the initial tier 3 public notice and applicable repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of ~~system~~ **supply**, but it shall, at a minimum, meet all of the following requirements:
(a) Unless directed otherwise by the department, in writing, ~~suppliers of~~ community water ~~systems~~ **supplies** shall provide notice by using both of the following forms of delivery:
(i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the ~~supplier~~ **community supply**.
(ii) Other methods reasonably calculated to reach other persons regularly served by the ~~system~~ **community supply**, if they would not normally be reached by the notice required in paragraph (i) of this subdivision. Other persons served may include those who do not pay water bills or do not have service connection addresses, such as house renters, apartment dwellers, university students, nursing home patients, and prison inmates. Other methods may include any of the following:
(A) Publication in a local newspaper.
(B) Delivery of multiple copies for distribution by customers that provide their drinking water to others, such as apartment building owners or large private employers.
(C) Posting in public places served by the ~~system~~ **community supply** or on the internet.
(D) Delivery to community organizations.
(b) Unless directed otherwise by the department, in writing, ~~suppliers of~~ noncommunity water ~~systems~~ **supplies** shall provide notice by using both of the following forms of delivery:
(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the ~~system~~ **noncommunity supply** or mailing or directly delivering to each customer and service connection, where known.
(ii) Other methods reasonably calculated to reach other persons served by the ~~system~~ **noncommunity supply** if they would not normally be reached by the notice required in paragraph (i) of this subdivision. Other persons served may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include any of the following:
(A) Publication in a local newspaper or newsletter distributed to customers.
(B) Use of e-mail to notify employees or students.
(C) Delivery of multiple copies in central locations, such as community centers.
(4) For community water ~~systems~~ **supplies**, the consumer confidence report (CCR) required under R 325.10411 to R 325.10415 may be used as a vehicle for the initial tier 3 public notice and all required repeat notices, if all of the following requirements are satisfied:
(a) The CCR is provided to persons served not later than 12 months after the ~~supplier~~ **community water supply** learns of the violation or situation as required under subrule (2) of this rule.
(b) The tier 3 notice contained in the CCR follows the content requirements under R 325.10405.
(c) The CCR is distributed following the delivery requirements under subrule (3) of this rule.

R 325.10405 Content of public notice.

Rule 405. (1) If a ~~system~~ **community or noncommunity water supply that is subject to R 325.10401a** has a violation or situation requiring public notification, then each public notice shall include all of the following elements:
(a) A description of the violation or situation, including the contaminant or contaminants of concern, and, as applicable, the contaminant level or levels.
(b) When the violation or situation occurred.
(c) The potential adverse health effects from the violation or situation, including the standard language under subrule (4)(a) or (4)(b) of this rule, whichever is applicable.
(d) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water.
(e) If alternative water supplies should be used.
(f) What actions consumers should take, including when they should seek medical help, if known.
(g) What the ~~supplier~~ **supply** is doing to correct the violation or situation.
(h) When the ~~supplier~~ **supply** expects to return to compliance or resolve the situation.
(i) The name, business address, and phone number of the ~~supplier~~ **supply** or designee of the ~~supplier~~ **supply** as a source of additional information concerning the notice.
(j) A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subrule (4)(c) of this rule, where applicable.
(2) All of the following elements shall be included in the public notice for public water ~~systems~~ **supplies** operating under a variance or exemption:
(a) If a public water ~~system~~ **supply** has been granted a variance or an exemption, then the public notice shall contain all of the following elements:
(i) An explanation of the reasons for the variance or exemption.
(ii) The date on which the variance or exemption was issued.
(iii) A brief status report on the steps the ~~supplier~~ **supply** is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption.
(iv) A notice of opportunities for public input in the review of the variance or exemption.
(b) If a public water ~~system~~ **supply** violates the conditions of a variance or exemption, then the public notice shall contain the 10 elements listed in subrule (1) of this rule.
(3) The public notice shall be presented in the following manner:
(a) Each public notice required by this part shall meet all of the following criteria:
(i) Shall be displayed in a conspicuous way when printed or posted.
(ii) Shall not contain overly technical language or very small print.
(iii) Shall not be formatted in a way that defeats the purpose of the notice.
(iv) Shall not contain language which nullifies the purpose of the notice.
(b) In communities where more than 10% of the consumers are non-English speaking consumers, the public notice shall contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where persons served may contact the ~~supplier~~ **supply** to obtain a translated copy of the notice or to request assistance in the appropriate language.
(4) The ~~supplier~~ **supply** shall include the following standard language in the public notice:
(a) The ~~supplier~~ **supply** shall include in each public notice the health effects language specified in table 1 of this rule corresponding to each MCL, MRDL, and treatment technique

violation listed in table 1 of R 325.10401a, and for each violation of a condition of a variance or exemption.

(b) The ~~supplier~~ **supply** shall include the following language in the notice, including the language necessary to fill in the blanks, for all monitoring and testing procedure violations listed in table 1 of R 325.10401a: "We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period], we 'did not monitor or test' or 'did not complete all monitoring or testing' for [contaminant or contaminants], and therefore cannot be sure of the quality of your drinking water during that time."

(c) The ~~supplier~~ **supply** shall include in the notice the following language, where applicable, to encourage the distribution of the public notice to all persons served: "Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail."

Table 1 Regulated contaminants

Key
AL=Action level
MCL=Maximum contaminant level
MCLG=Maximum contaminant level goal
mfl=Million fibers per liter
MRDL=Maximum residual disinfectant level
MRDLG=Maximum residual disinfectant level goal
mrem/year=Millirems per year (a measure of radiation absorbed by the body)
N/A=Not applicable
ntu=Nephelometric turbidity units (a measure of water clarity)
pci/l=Picocuries per liter (a measure of radioactivity)
ppm=Parts per million, or milligrams per liter (mg/l)
ppb=Parts per billion, or micrograms per liter (µg/l)
ppt=Parts per trillion, or nanograms per liter
ppq=Parts per quadrillion, or picograms per liter
TT=Treatment technique

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Microbiological contaminants						
Total coliform bacteria	MCL: For water ~~systems~~ **supplies** analyzing 40 or more samples per month, not more than 5.0% of the monthly samples may be positive for total coliform. For ~~systems~~ **supplies** analyzing fewer than 40 samples per month, not more than 1 sample per month may be positive for total coliform.			zero	Naturally present in the environment	Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Fecal coliform and E. coli	zero	No conversion necessary	zero	zero	Human and animal fecal waste	Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Fecal indicator under groundwater requirements in R 325.10612 et. al: - E.coli - enterococci or - coliphage)	**TT**	**No conversion necessary**	**TT**	**E.coli: zero Others: N/A**	**Human and animal fecal waste**	**Fecal indicators are microbes whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term health effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.**
Violations of rules for ground water supplies subject to R 325.10612	**TT**	**No conversion necessary**	**TT**	**N/A**	**N/A**	**Inadequately treated or inadequately protected water may contain disease-causing organisms. These organisms can cause symptoms such as diarrhea, nausea, cramps, and associated headaches.**

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Turbidity (ntu)	TT*	No conversion necessary	TT*	N/A	Soil runoff	Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
	~~* R 325.10611b sets turbidity standards for different types of systems.~~					
Other microbiological contaminants						
Giardia lamblia, viruses, heterotrophic plate count (HPC) bacteria, legionella, cryptosporidium	TT*	No conversion necessary	TT*	zero	Naturally present in the environment	Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.
	* The treatment technique violations that involve turbidity exceedances may use health effects language for turbidity instead.					
Inorganic contaminants						
Antimony (ppb)	0.006	1000	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	0.010*	1000	10*	0*	Erosion of natural	Some people who drink water containing

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
	~~* These values are effective January 23, 2006. Until then, the MCL is 0.05 mg/l and there is no MCLG.~~				deposits; runoff from orchards; runoff from glass and electronics production wastes	arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
Asbestos [fibers longer than 10 µm] (mfl)	7 mfl	No conversion necessary	7	7	Decay of asbestos cement water mains; erosion of natural deposits	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
Barium (ppm)	2	No conversion necessary	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Beryllium (ppb)	0.004	1000	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Cadmium (ppb)	0.005	1000	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
Chromium [total] (ppb)	0.1	1000	100	100	Discharge from steel and pulp mills; erosion of natural deposits	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
Cyanide [free] (ppb)	0.2	1000	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
Fluoride (ppm)	4.**0**	No conversion necessary	4.**0**	4.**0**	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than 9 years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Mercury [inorganic] (ppb)	0.002	1000	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
Nitrate [as nitrogen] (ppm)	10	No conversion necessary	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Nitrite [as nitrogen] (ppm)	1	No conversion necessary	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
Total nitrate and nitrite [as nitrogen] (ppm)	10	No conversion necessary	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	Infants below the age of 6 months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Selenium (ppb)	0.05	1000	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
Thallium (ppb)	0.002	1000	2	0.5	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
Lead and copper						
Lead (ppb)	AL=0.015	1000	AL=15 (TT)	zero	Corrosion of household plumbing systems; erosion of natural deposits	Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.
Copper (ppm)	AL=1.3	No conversion necessary	AL=1.3 (TT)	1.3	Corrosion of household plumbing systems; erosion of natural deposits	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's disease should consult their personal doctor.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Synthetic organic contaminants including pesticides and herbicides						
2,4-D (ppb)	0.07	1000	70	70	Runoff from herbicide used on row crops	Some people who drink water containing the weed killer 2,4-d well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
2,4,5-TP [silvex] (ppb)	0.05	1000	50	50	Residue of banned herbicide	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
Alachlor (ppb)	0.002	1000	2	zero	Runoff from herbicide used on row crops	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
Atrazine (ppb)	0.003	1000	3	3	Runoff from herbicide used on row crops	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.
Benzo(a)pyrene [PAHs] (ppt)	0.0002	1,000,000	200	zero	Leaching from linings of water storage tanks and distribution lines	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
Carbofuran (ppb)	0.04	1000	40	40	Leaching of soil fumigant used on rice and alfalfa	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Chlordane (ppb)	0.002	1000	2	zero	Residue of banned termiticide	Some people who drink water containing chlordane in excess of the mcl over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.
Dalapon (ppb)	0.2	1000	200	200	Runoff from herbicide used on rights of way	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
Di(2-ethylhexyl) adipate (ppb)	0.4	1000	400	400	Discharge from chemical factories	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience toxic effects such as weight loss, liver enlargement, or possible reproductive difficulties.
Di(2-ethylhexyl) phthalate (ppb)	0.006	1000	6	zero	Discharge from rubber and chemical factories	Some people who drink water containing di (2-ethylhexyl) phthalate well in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
Dibromochloropropane [DBCP] (ppt)	0.0002	1,000,000	200	zero	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Dinoseb (ppb)	0.007	1000	7	7	Runoff from herbicide used on soybeans and vegetables	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Dioxin [2,3,7,8-TCDD] (ppq)	0.00000003	1,000,000,000	30	zero	Emissions from waste incineration and other combustion; discharge from chemical factories	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
Diquat (ppb)	0.02	1000	20	20	Runoff from herbicide use	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
Endothall (ppb)	0.1	1000	100	100	Runoff from herbicide use	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
Endrin (ppb)	0.002	1000	2	2	Residue of banned insecticide	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
Ethylene dibromide (ppt)	0.00005	1,000,000	50	zero	Discharge from petroleum refineries	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
Glyphosate (ppb)	0.7	1000	700	700	Runoff from herbicide use	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Heptachlor (ppt)	0.0004	1,000,000	400	zero	Residue of banned pesticide	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.
Heptachlor epoxide (ppt)	0.0002	1,000,000	200	zero	Breakdown of heptachlor	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
Hexachlorobenzene (ppb)	0.001	1000	1	zero	Discharge from metal refineries and agricultural chemical factories	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
Hexachlorocyclopentadiene (ppb)	0.05	1000	50	50	Discharge from chemical factories	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
lindane (ppt)	0.0002	1,000,000	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
Methoxychlor (ppb)	0.04	1000	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Oxamyl [vydate] (ppb)	0.2	1000	200	200	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
Pentachlorophenol (ppb)	0.001	1000	1	zero	Discharge from wood preserving factories	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
Picloram (ppb)	0.5	1000	500	500	Herbicide runoff	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
Polychlorinated biphenyls [PCBs] (ppt)	0.0005	1,000,000	500	zero	Runoff from landfills; discharge of waste chemicals	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
Simazine (ppb)	0.004	1000	4	4	Herbicide runoff	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
Toxaphene (ppb)	0.003	1000	3	zero	Runoff/leaching from insecticide used on cotton and cattle	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Volatile organic contaminants						
Benzene (ppb)	0.005	1000	5	zero	Discharge from factories; leaching from gas storage tanks and landfills	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
Carbon tetrachloride (ppb)	0.005	1000	5	zero	Discharge from chemical plants and other industrial activities	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
Chlorobenzene (ppb)	0.1	1000	100	100	Discharge from chemical and agricultural chemical factories	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.
O-dichlorobenzene (ppb)	0.6	1000	600	600	Discharge from industrial chemical factories	Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
P-dichlorobenzene (ppb)	0.075	1000	75	75	Discharge from industrial chemical factories	Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
1,2-dichloroethane (ppb)	0.005	1000	5	zero	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
1,1-dichloroethylene (ppb)	0.007	1000	7	7	Discharge from industrial chemical factories	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
Cis-1,2-dichloroethylene (ppb)	0.07	1000	70	70	Discharge from industrial chemical factories	Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
Trans-1,2-dichloroethylene (ppb)	0.1	1000	100	100	Discharge from industrial chemical factories	Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
Dichloromethane (ppb)	0.005	1000	5	zero	Discharge from pharmaceutical and chemical factories	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
1,2-dichloropropane (ppb)	0.005	1000	5	zero	Discharge from industrial chemical factories	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
Ethylbenzene (ppb)	0.7	1000	700	700	Discharge from petroleum refineries	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
Styrene (ppb)	0.1	1000	100	100	Discharge from rubber and plastic factories; leaching from landfills	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Tetrachloro-ethylene (ppb)	0.005	1000	5	Zero	Discharge from factories and dry cleaners	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
Toluene (ppm)	1	No conversion necessary	1	1	Discharge from petroleum factories	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
1,2,4-trichlorobenzene (ppb)	0.07	1000	70	70	Discharge from textile-finishing factories	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
1,1,1-trichloroethane (ppb)	0.2	1000	200	200	Discharge from metal degreasing sites and other factories	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
1,1,2-trichloroethane (ppb)	0.005	1000	5	3	Discharge from industrial chemical factories	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
Trichloroethylene (ppb)	0.005	1000	5	zero	Discharge from metal degreasing sites and other factories	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Vinyl chloride (ppb)	0.002	1000	2	zero	Leaching from PVC piping; discharge from plastics factories	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
Xylenes [total] (ppm)	10	No conversion necessary	10	10	Discharge from petroleum factories; discharge from chemical factories	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.
Radioactive contaminants						
Beta/photon emitters (mrem/yr)	4 mrem/yr	No conversion necessary	4	zero	Decay of natural and man-made deposits	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta particle and photon radioactivity in excess of the MCL over many years may have an increased risk of getting cancer.
Alpha emitters [gross alpha] (pci/l)	15 pCi/L	No conversion necessary	15	zero	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Combined radium [226 & 228] (pci/l)	5 pCi/L	No conversion necessary	5	zero	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Uranium (pCi/L)	30 ug/L	No conversion necessary	30	Zero	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Disinfection byproducts (DBP), byproduct precursors, and disinfectant residuals: where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBP). The department sets standards for controlling the levels of disinfectants and DBP in drinking water, including trihalomethanes (THM) and haloacetic acids (HAA). See R 325.10610~~, R 325.10610a,~~ **to R 325.10610d** and R 325.10719e **to R 325.10719n** for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.						
Total trihalomethanes [TTHM] (ppb)	~~0.10/~~ 0.080*	1000	~~100/~~80 *	N/A	By-product of drinking water disinfection	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
	* The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.~~ Different MCLs for TTHM apply to different types of systems. See the footnote in R 325.10610(1).~~					
Haloacetic acids (HAAs) (ppb)	0.060*	1000	60*	N/A	By-product of drinking water disinfection	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
	* The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.					
Bromate (ppb)	0.010	1000	10	zero	By-product of drinking water disinfection	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
Chloramines (ppm)	MRDL = 4	No conversion necessary	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Chlorine (ppm)	MRDL = 4	No conversion necessary	MRDL = 4	MRDLG = 4	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
Chlorite (ppm)	1	No conversion necessary	1	0.8	By-product of drinking water disinfection	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
Chlorine dioxide (ppb)	MRDL = 0.8	1000	MRDL = 800	MRDLG = 800	Water additive used to control microbes	Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
	Add the following only to public notification where any 2 consecutive daily samples taken at the entrance to the distribution system are above the MRDL: "The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, not within the distribution system which delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers." Add the following only to public notification where ~~one~~ **1** or more distribution system samples are above the MRDL: "The chlorine dioxide violations reported today include exceedances of the drinking water standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from excessive chlorine dioxide exposure."					
Total organic carbon [TOC - control of DBP precursors] (ppm)	TT	No conversion necessary	TT	None	Naturally present in the environment	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.
Other treatment techniques						
Acrylamide	TT	No conversion necessary	TT	zero	Added to water during sewage/ wastewater treatment	Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.

Contaminant in CCR units	Traditional MCL in mg/l, except where noted	To convert for CCR, multiply by	MCL in CCR units	MCLG in CCR units	Major sources in drinking water	Health effects language
Epichlorohydrin	TT	No conversion necessary	TT	zero	Discharge from industrial chemical factories; an impurity of some water treatment chemicals	Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.

R 325.10406 Notice to new billing units or new customers.
Rule 406. (1) ~~Suppliers of community water systems~~ **Community water supplies** shall give a copy of the most recent public notice for continuing violations, the existence of a variance or exemption, or other ongoing situations requiring a public notice to all new billing units or new customers before or at the time service begins.
(2) ~~Suppliers of noncommunity water systems~~ **Noncommunity water supplies** shall continuously post the public notice in conspicuous locations in order to inform new consumers of continuing violations, variance or exemption, or other situation requiring a public notice for as long as the violation, variance, exemption, or other situation exists.

R 325.10407 Special notice of the availability of unregulated contaminant monitoring results.
Rule 407. (1) ~~The supplier of a~~ **A** community ~~water system~~ or nontransient, noncommunity water ~~system~~ **supply** required to monitor under ~~R 325.10717b(1)~~ **40 CFR 141.40, as referenced in R 325.10401a,** shall notify persons served by the ~~system~~ **water supply** of the availability of the results of such sampling not later than 12 months after the monitoring results are known.
(2) The form and manner of the public notice shall follow the requirements for a tier 3 public notice under R 325.10404(3), (4)(a) and (c). The notice shall also identify a person and provide the telephone number to contact for information on the monitoring results.

R 325.10408 Periodic progress reports; correction of violations and notification of customers.
Rule 408. The department may require a ~~supplier of a~~ public water ~~system~~ **supply** to submit periodic reports on progress being made to correct a violation of an MCL, order, or a variance or exemption, and to notify the persons served by the ~~system~~ **public water supply** of that progress.

R 325.10408a Special notice when fluoride level is above ~~2~~ **2.0** mg/l.
Rule 408a. (1) ~~Suppliers of community water systems~~ **Community water supplies** that measure fluoride above ~~2~~ **2.0** mg/l as determined by the last single sample taken under R 325.10710, but do not exceed the maximum contaminant level (MCL) of ~~4~~ **4.0** mg/l for fluoride under R 325.10604c, shall provide the public notice in subrule (3) of this rule to persons served. Public notice shall be provided as soon as practical but not later than that of a tier 3 public notice under R 325.10404(2)(a). A copy of the notice shall also be sent to all new billing units and new customers under R 325.10406(1) and to the local health department. The department may, on a case-by-case basis, in the best interest of health, safety, welfare, and the environment, require an initial notice sooner than 12 months or applicable repeat notices more frequently than annually, or both.
(2) The form and manner of the public notice, including repeat notices, shall follow the requirements for a tier 3 public notice in R 325.10404(3)**,** ~~and~~ (4)(a)**,** and (4)(c).
(3) The notice shall contain the following language, including the language necessary to fill in the blanks:
"This is an alert about your drinking water and a cosmetic dental problem that might affect children under 9 years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than ~~2~~ **2.0** milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system [name] has a fluoride concentration of [insert value] mg/l.
Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under 9 should be provided with alternative sources of drinking water or water that has been

treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride containing products. Older children and adults may safely drink the water.
Drinking water containing more than ~~4~~ **4.0** mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than ~~4~~ **4.0** mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed ~~2~~ **2.0** mg/l because of this cosmetic dental problem.
For more information, please call [name of water system contact] of [name of community water system] at [phone number]. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8 NSF HELP."

R 325.10408b Special notice for nitrate exceedances above MCL by noncommunity water ~~systems~~ **supplies** (NCWS); permission granted by department.
Rule 408b. (1) ~~The supplier of a~~ **A** noncommunity water ~~system~~ **supply** granted permission by the department under R 325.10604c(3) to exceed the nitrate MCL shall provide notice to persons served according to the requirements for a tier 1 notice under R 325.10402(1) and (2).
(2) ~~Noncommunity water systems~~ **A noncommunity water supply** granted permission by the department to exceed the nitrate MCL under R 325.10604c(3) shall provide continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential health effects of exposure, according to the requirements for tier 1 notice delivery under R 325.10402(3) and the content requirements under R 325.10405.

R 325.10408c Special notice to public of significant deficiencies or source water fecal contamination.
Rule 408c. (1) A community groundwater supply that receives notice from the department under R 325.10612a of a significant deficiency or notification of a fecal indicator-positive groundwater source sample that is not invalidated by the department under R 325.10739(3) shall inform the public served by the water supply under R 325.10413(11)(f) of the fecal indicator-positive source sample or of any significant deficiency that has not been corrected. The community groundwater supply shall continue to inform the public annually until the significant deficiency is corrected or the fecal contamination in the groundwater source is determined by the department to be corrected under R 325.10612a(1)(e).
(2) A noncommunity groundwater supply that receives notice from the department under R 325.10612a of a significant deficiency shall inform the public served by the water supply in a manner approved by the department of any significant deficiency that has not been corrected within 12 months of being notified by the department, or earlier if directed by the department. The noncommunity groundwater supply shall continue to inform the public annually until the significant deficiency is corrected. The information shall include all of the following:
(a) The nature of the significant deficiency and the date the significant deficiency was identified by the department.
(b) The department-approved plan and schedule for correction of the significant deficiency, including interim measures, progress to date, and any interim measures completed.
(c) For noncommunity groundwater supplies serving a population with more than 10% non-English speaking consumers, information in the appropriate language or languages regarding the importance of the notice or a telephone number or address where consumers may contact the supply to obtain a translated copy of the notice or assistance in the appropriate language.

(3) If directed by the department, a noncommunity water supply with significant deficiencies that have been corrected shall inform its customers of the significant deficiencies, how the deficiencies were corrected, and the dates of correction under subrule (2) of this rule.

R 325.10408d Repeated failure to conduct monitoring of source water for Cryptosporidium and failure to determine bin classification or mean Cryptosporidium level; special notice.
Rule 408d. (1) A community or noncommunity water supply that is required to monitor source water under 40 CFR 141.701, as adopted by reference in R 325.10720b, shall notify persons served by the water supply that monitoring has not been completed as specified not later than 30 days after the supply has failed to collect any 3 months of monitoring as specified in 40 CFR 141.701(c). The notice shall be repeated as specified in R 325.10403(2).
(2) A community or noncommunity water supply that is required to determine a bin classification under R 325.10611e shall notify persons served by the water supply that the determination has not been made as required not later than 30 days after the supply has failed to report the determination as specified in R 325.10611e(5). The notice shall be repeated as specified in R 325.10403(2). The notice is not required if the supply is complying with a department-approved schedule to address the violation.
(3) The form and manner of the public notice shall follow the requirements for a Tier 2 public notice prescribed in R 325.10403(3). The public notice shall be presented as required in R 325.10405(3).
(4) The notice shall contain the following language, including the language necessary to fill in the blanks:
(a) The special notice for repeated failure to conduct monitoring shall contain the following language: "We are required to monitor the source of your drinking water for Cryptosporidium. Results of the monitoring are to be used to determine whether water treatment at the [treatment plant name] is sufficient to adequately remove Cryptosporidium from your drinking water. We are required to complete this monitoring and make this determination by [required bin determination date]. We 'did not monitor or test' or 'did not complete all monitoring or testing' on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, shall be made to ensure adequate Cryptosporidium removal. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the deadline required, [date]. For more information, please call [name of water supply contact] of [name of water supply] at [phone number]."
(b) The special notice for failure to determine bin classification or mean Cryptosporidium level shall contain the following language: "We are required to monitor the source of your drinking water for Cryptosporidium in order to determine by [date] whether water treatment at the [treatment plant name] is sufficient to adequately remove Cryptosporidium from your drinking water. We have not made this determination by the required date. Our failure to do this may jeopardize our ability to have the required treatment modifications, if any, completed by the required deadline of [date]. For more information, please call [name of water supply contact] of [name of water supply] at [phone number]."
(c) Each special notice shall also include a description of what the water supply is doing to correct the violation and when the supply expects to return to compliance or resolve the situation.

R 325.10409 Notice by department on behalf of the public water system.

Rule 409. (1) The department may give the notice required by this part on behalf of the ~~supplier of the~~ public water ~~system~~ **supply** if the department complies with the requirements of this part and may charge costs incurred by the department to the ~~owner of the~~ public water supply.
(2) The ~~supplier of the~~ public water ~~system~~ **supply** shall ensure that the requirements of this part are met.

R 325.10410 Public education regarding lead.
Rule 410. (1) **Each community and noncommunity water supply that monitors for lead under R 325.10710a shall deliver a consumer notice of lead tap water monitoring results to persons served by the water supply at sites that are tested, as specified in subrule (5) of this rule. A community or noncommunity water supply is also considered "water supply" or "supply" in this rule.** ~~If a community water system or a nontransient noncommunity water system~~ **A water supply that** exceeds the lead action level based on tap water samples that are collected under R 325.10710a~~, then the supplier~~ shall deliver the public education materials ~~specified in 40 C.F.R. §§141.85(a) and (b), (January 26, 2000), which are adopted by reference. The adopted material is available from the Superintendent of Documents at the address in R 325.10116(b) for a cost of $47.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a)~~ **contained in subrule (2) of this rule under the requirements in subrule (3) of this rule**. **A water supply that exceeds the lead action level shall offer to arrange for sampling the tap water of a customer who requests sampling under subrule (4) of this rule. The supply is not required to pay for collecting or analyzing the sample and is not required to collect and analyze the sample.**
(2) ~~In a community where more than 10% of the population speaks a language other than English, public education materials shall be communicated in the appropriate language or languages.~~ **Both of the following apply to the content of written public education materials:**
(a) Water supplies shall include the following elements in printed materials, for example, brochures and pamphlets, in the same order as listed below. In addition, language in paragraphs (i) to (ii) and (vi) of this subdivision shall be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water supply shall include supply-specific information. Any additional information presented by a water supply shall be consistent with the information below and be in plain language that can be understood by the general public. Water supplies shall submit all written public education materials to the department prior to delivery. The department may require the supply to obtain approval of the content of written public materials prior to delivery.
(i) IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [INSERT NAME OF WATER SUPPLY] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.
(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

(iii) Sources of Lead.
(A) Explain what lead is.
(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead.
(C) Discuss other important sources of lead exposure in addition to drinking water, for example, paint.
(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water.
(A) Encourage running the water to flush out the lead.
(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.
(C) Explain that boiling water does not reduce lead levels.
(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.
(E) Suggest that parents have their child's blood tested for lead.
(v) Explain why there are elevated levels of lead in the supply's drinking water, if known, and what the water supply is doing to reduce the lead levels in homes/buildings in this area.
(vi) For more information, call us at [INSERT YOUR NUMBER] [(IF APPLICABLE), or visit our Web site at [INSERT YOUR WEB SITE HERE]]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at http://www.epa.gov/lead or contact your health care provider.
(b) In addition to including the elements specified in subdivision (a) of this subrule, community water supplies shall:
(i) Tell consumers how to get their water tested.
(ii) Discuss lead in plumbing components and the difference between low lead and lead free.
(3)~~ The supplier of a community water system that exceeds the lead action level on the basis of tap water samples collected under R 325.10710a, and that is not already repeating public education tasks pursuant to subrules (4), (8), and (9) of this rule, shall, within 60 days, do all of the following:~~ **All of the following provisions apply to delivery of public education materials:**
(a)~~ Insert notices in each customer's water utility bill containing the information specified in 40 C.F.R. §141.85(a)(1), together with the following alert on the water bill itself in large print: "Some homes in this community have elevated lead levels in their drinking water. Lead can pose a significant risk to your health. Please read the enclosed notice for further information." The supplier of a community water system having a billing cycle that does not include a billing within 60 days of exceeding the action level, or that cannot insert information in the water utility bill without making major changes to its billing system, may use a separate mailing to deliver the information in 40 C.F.R. §141.85(a)(1), as adopted by reference in subrule (1) of this rule, as long as the information is delivered to each customer within 60 days of exceeding the action level. The supplier shall also include the "alert" language specified in this subdivision.~~ **For public water supplies serving communities that have more than 10% non-English speaking consumers, the public education materials shall contain information in the appropriate language or languages regarding the importance of the notice or contain a telephone number or address where persons served may contact the water supply to obtain a translated copy of the public education materials or to request assistance in the appropriate language.**
(b)~~ Submit the information specified in 40 C.F.R. §141.85(a)(1), as adopted by reference in subrule (1) of this rule, to the editorial departments of the major daily and weekly newspapers circulated throughout the community.~~ **A community water supply that exceeds the lead action level on the basis of tap water samples collected under R 325.10710a, and that is not already conducting public education**

tasks under this rule, shall conduct the public education tasks under this rule within 60 days after the end of the monitoring period in which the exceedance occurred. The following apply:
(i) Deliver printed materials meeting the content requirements of subrule (2) of this rule to all bill paying customers.
(ii) All of the following provisions apply to contacting at risk customers:
(A) Contact customers who are most at risk by delivering education materials that meet the content requirements of subrule (2) of this rule to local public health agencies even if they are not located within the water supply's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water supply's users. The water supply shall contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community based organizations serving target populations, which may include organizations outside the service area of the water supply. If lists are provided, supplies shall deliver education materials that meet the content requirements of subrule (2) of this rule to all organizations on the provided lists.
(B) Contact customers who are most at risk by delivering materials that meet the content requirements of subrule (2) of this rule to all of the following organizations that are located within the water supply's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water supply's users:
(1) Public and private schools or school boards.
(2) Women, Infants and Children (WIC) and Head Start programs.
(3) Public and private hospitals and medical clinics.
(4) Pediatricians.
(5) Family planning clinics.
(6) Local welfare agencies.
(C) Make a good faith effort to locate all of the following organizations within the service area and deliver materials that meet the content requirements of subrule (2) of this rule to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water supply's service area:
(1) Licensed childcare centers.
(2) Public and private preschools.
(3) Obstetricians-gynecologists and midwives.
(iii) Not less often than quarterly, provide information on or in each water bill as long as the supply exceeds the action level for lead. The message on the water bill shall include the following statement exactly as written except for the text in brackets for which the water supply shall include supply-specific information: [INSERT NAME OF WATER SUPPLY] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SUPPLY] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the department; specifically, the department may allow a separate mailing of public education materials to customers if the water supply cannot place the information on water bills.
(iv) Post material meeting the content requirements of subrule (2) of this rule on the water supply's Web site if the supply serves a population greater than 100,000.
(v) Submit a press release to newspaper, television, and radio stations.

(vi) In addition to subdivision (i) to (v) of this subrule, supplies shall implement not fewer than 3 activities from 1 or more categories listed below. The educational content and selection of these activities shall be determined in consultation with the department.
(A) Public service announcements.
(B) Paid advertisements.
(C) Public area information displays.
(D) E-mails to customers.
(E) Public meetings.
(F) Household deliveries.
(G) Targeted individual customer contact.
(H) Direct material distribution to all multifamily homes and institutions.
(I) Other methods approved by the department.
(vii) For supplies that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the department has established an alternate monitoring period, the last day of that period.
(c)~~ Deliver pamphlets or brochures, or both, that contain the public education materials specified in 40 C.F.R. §§141.85(a)(1)(ii) and (iv), as adopted by reference in subrule (1) of this rule, to facilities and organizations, including all of the following:~~
~~(i) Public schools or local school boards.~~
~~(ii) City or county health department.~~
~~(iii) Women, infants, and children (WIC), or head start programs.~~
~~(iv) Public and private hospitals or clinics.~~
~~(v) Pediatricians.~~
~~(vi) Family planning clinics.~~
~~(vii) Local welfare agencies.~~ **As long as a community water supply exceeds the action level, it shall repeat the activities under subdivision (b) of this subrule as described in all of the following, as applicable:**
(i) A community water supply shall repeat the education materials delivery tasks contained in subdivision (b)(i) to (ii) of this subrule and repeat the additional activities tasks contained in subdivision (b)(vi) of this subrule every 12 months.
(ii) A community water supply shall repeat the water bill information tasks contained in subdivision (b)(iii) of this subrule with each billing cycle.
(iii) A community water supply serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site under subdivision (b)(iv) of this subrule.
(iv) The community water supply shall repeat the press release task in subdivision (b)(v) of this subrule twice every 12 months on a schedule agreed upon with the department. The department may allow activities in subdivision (b) of this subrule to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension shall be approved in writing by the department before the 60-day deadline.
(d)~~ Submit the public service announcement specified in 40 C.F.R. §141.85(b), as adopted by reference in subrule (1) of this rule, to not fewer than 5 of the radio and television stations with the largest audiences that broadcast to the community that is served by the system. For small water systems, the public service announcement may be hand delivered to each customer instead of submitting the announcement to radio and television stations.~~ **Within 60 days after the end of the monitoring period in which the exceedance occurred, unless it already is repeating public education tasks under subdivision (e) of this subrule, a nontransient noncommunity water supply shall deliver the public education materials specified by subrule (2) of this rule under all of the following provisions:**

(i) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the supply.
(ii) Distribute informational pamphlets, or brochures, or both, on lead in drinking water to each person served by the nontransient noncommunity water supply. The department may allow the supply to utilize electronic transmission instead of or combined with printed materials as long as it achieves at least the same coverage.
(iii) For supplies that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the department has established an alternate monitoring period, the last day of that period.
(e) A nontransient noncommunity water supply shall repeat the posting and distributing tasks contained in subdivision (d) of this subrule at least once during each calendar year in which the supply exceeds the lead action level. The department can allow activities in subdivision (d) of this subrule to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension shall be approved in writing by the department in advance of the 60-day deadline.
(f) A water supply may discontinue delivery of public education materials if the supply has met the lead action level during the most recent 6-month monitoring period conducted under R 325.10710a. The supply shall recommence public education under this rule if it subsequently exceeds the lead action level during a monitoring period.
(g) A community water supply may apply to the department, in writing, unless the department has waived the requirement for prior department approval, to use only the text specified in subrule (2)(a) of this rule instead of the text in subrule (2)(a) to (b) of this rule and to perform the tasks listed in subdivisions (d) and (e) of this subrule instead of the tasks in subdivisions (b) and (c) of this subrule if both of the following conditions exist:
(i) The supply is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices.
(ii) The supply provides water as part of the cost of services provided and does not separately charge for water consumption.
(h) A community water supply serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:
(i) With respect to the requirements of subdivision (b)(vi) of this subrule, a supply serving 3,300 or fewer shall implement at least 1 of the activities listed in that paragraph.
(ii) With respect to the requirements of subdivision (b)(ii) of this subrule, a supply serving 3,300 or fewer people may limit the distribution of the public education materials required under that subdivision to facilities and organizations served by the supply that are most likely to be visited regularly by pregnant women and children.
(iii) With respect to the requirements of subdivision (b)(v) of this subrule, the department may waive this requirement for supplies serving 3,300 or fewer persons as long as supply distributes notices to every household served by the supply.
(4) ~~The supplier of a community water system shall repeat the tasks specified in subrule (3)(a), (b), and (c) of this rule every 12 months and the tasks specified in subrule (3)(d) of this rule every 6 months for as long as the system exceeds the lead action level.~~ **A water supply that fails to meet the lead action level based on tap samples collected under R 325.10710a shall offer to arrange for sampling the tap water of a customer who requests sampling. The supply is not required to pay for collecting or analyzing the sample and is not required to collect and analyze the sample.**

(5)~~ Within 60 days after a nontransient, noncommunity water system exceeds the lead action level, unless the supplier is already repeating public education tasks pursuant to subrule (6) of this rule, the supplier shall deliver the public education materials specified in the applicable provisions of 40 C.F.R. §141.85(a)(1), as adopted by reference in subrule (1) of this rule, or the public education materials specified by 40 C.F.R. §141.85(a)(2), as follows:~~

~~(a) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system.~~

~~(b) Distribute informational pamphlets or brochures, or both, on lead in drinking water to each person who is served by the nontransient, noncommunity water system. The department may allow the supplier to utilize electronic transmission instead of or combined with printed materials as long as it achieves at least the same coverage.~~ **All of the following provisions apply to notification of results:**

(a) Each supply shall provide a notice of the individual tap results from lead tap water monitoring carried out under R 325.10710a to the persons served by the supply at the specific sampling site from which the sample was taken, for example, the occupants of the residence where the tap was tested.

(b) A supply shall provide the consumer notice as soon as practical, but not later than 30 days after the supply learns of the tap monitoring results.

(c) The consumer notice shall include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice shall also provide the maximum contaminant level goal and the action level for lead and the definitions for these 2 terms from R 325.10413(4) and (6).

(d)The consumer notice shall be provided to persons served at the tap that was tested, either by mail or by another method approved by the department. For example, upon approval by the department, a non- transient non-community water supply could post the results on a bulletin board in the facility to allow users to review the information. The supply shall provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

~~(6) The supplier of a nontransient, noncommunity water system shall repeat the tasks specified in subrule (5) of this rule at least once during each calendar year in which the system exceeds the lead action level.~~

~~(7) A supplier may discontinue delivery of public education materials if the system subject to this rule has met the lead action level during the most recent 6 month monitoring period conducted under R 325.10710a. The supplier shall recommence public education under this rule if it subsequently exceeds the lead action level during a monitoring period.~~

~~(8) The supplier of a community water system may apply to the department, in writing, unless the department has waived the requirement for prior department approval, to use the text specified in 40 C.F.R. §141.85(a)(2), as adopted by reference in subrule (1) of this rule, instead of the text in 40 C.F.R. §141.85(a)(1) and to perform the tasks listed in subrules (5) and (6) of this rule instead of the tasks in subrules (3) and (4) of this rule if both of the following provisions are satisfied:~~

~~(a) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices.~~

~~(b) The supplier provides water as part of the cost of services provided and does not separately charge for water consumption.~~

~~(9) Both of the following provisions apply to community water supplies serving 3,300 or fewer people:~~

~~(a) If a community water system serves 3,300 or fewer people, then the supplier may omit the task contained in subrule (3)(d) of this rule. As long as it distributes notices containing the information contained in 40 C.F.R §141.85(a)(1), as adopted by reference in subrule (1) of this rule, to every~~

~~household served by the system, those suppliers may further limit their public education programs as follows:~~
~~(i) If a system serves 500 or fewer people, then the supplier may forego the task contained in subrule (3)(b) of this rule. The supplier may limit the distribution of the public education materials required under subrule (3)(c) of this rule to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless it is notified by the department, in writing, that it shall make a broader distribution.~~
~~(ii) If a system serves 501 to 3,300 people, then the supplier, if approved by the department in writing, may omit the task in subrule (3)(b) of this rule or limit the distribution of the public education materials required under subrule (3)(c) of this rule to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, or may do both.~~
~~(b) The supplier of a community water system serving 3,300 or fewer people that delivers public education under subdivision (a)(i) of this subrule shall repeat the required public education tasks at least once during each calendar year in which the system exceeds the lead action level.~~

R 325.10411 Annual consumer confidence reporting; purpose; applicability.
Rule 411. (1) R 325.10411 to R 325.10415 establish the minimum requirements for the content, recordkeeping, and delivery of annual consumer confidence reports that ~~suppliers of~~ community water ~~systems~~ **supplies** shall prepare and deliver to their customers. These reports shall contain information on the quality of the water delivered by the supplie~~r~~s and characterize the risks, if any, from exposure to contaminants detected in the drinking water in an accurate and understandable manner.
(2) R 325.10411 to R 325.10415 apply only to community **water** supplies. **Community water supplies are also considered "water supplies" or "supplies" in R 325.10411 to R 325.10415.**
(3) For the purpose of R 325.10411 to R 325.10415, "report" means annual consumer confidence report.
(4) For the purpose of R 325.10411 to R 325.10415, "customers" are defined as billing units or service connections to which water is delivered by the ~~supplier of a~~ community water ~~system~~ **supply**.
(5) For the purpose of R 325.10411 to R 325.10420, "detected" means at or above the levels prescribed by R 325.10605.

R 325.10412 Annual consumer confidence reporting; effective dates.
Rule 412. (1) ~~The supplier of each~~ **Each** existing community water system shall deliver its report by July 1 annually. Each report shall contain data collected during, or before, the previous calendar year.
(2) The supplier of a new community water system shall deliver its first report by July 1 of the year after its first full calendar year in operation and then by July 1 annually.
(3) ~~The supplier of a~~ **A** community water ~~system~~ **supply** that sells water to another community water ~~system~~ **supply** shall deliver the applicable information required in R 325.10413 to the buyer ~~system~~ **water supply** by either of the following dates:
(a) April 1 annually.
(b) A date mutually agreed upon by the seller and the purchaser, and specifically included in a contract between the parties.

R 325.10413 Annual consumer confidence reporting; content of reports.
Rule 413. (1) ~~The supplier of e~~**E**ach community water ~~system~~ **supply** shall provide to its customers an annual report that contains the information specified in this rule and the information specified in R 325.10414.
(2) Each report shall identify the source or sources of the water delivered by the community water ~~system~~ **supply** by providing information on both of the following:

(a) The type of the water; for example, surface water or ground water.
(b) The commonly used name, if any, and location of the body or bodies of water.
(3) If a source water assessment has been completed, then the report shall notify consumers of the availability of the information and the means to obtain it. In addition, a community supply is encouraged to highlight in the report significant sources of contamination in the source water area if the supply has readily available information. If a ~~supplier~~ **supply** has received a source water assessment from the department, then the report shall include a brief summary of the ~~system's~~ **supply's** susceptibility to potential sources of contamination, using language provided by the department or written by the operator.
(4) Each report shall include both of the following definitions:
(a) "Maximum Contaminant Level Goal" or "MCLG" means the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
(b) "Maximum Contaminant Level" or "MCL" means the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
(5) A report for a community water ~~system~~ **supply** operating under a variance or an exemption issued under section 20 of the act shall include the definition for variances and exemptions. "Variances and exemptions" means state or EPA permission not to meet an MCL or a treatment technique under certain conditions.
(6) A report that contains data on regulated contaminants using any of the following terms shall include the applicable definitions:
(a) "Treatment technique" or "TT" means a required process intended to reduce the level of a contaminant in drinking water.
(b) "Action level" or "AL" means the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water supply shall follow.
(c) "Maximum residual disinfectant level goal" or "MRDLG" means the level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
(d) "Maximum residual disinfectant level" or "MRDL" means the highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
(7) The report shall include all of the following information on detected contaminants subject to mandatory monitoring, except Cryptosporidium:
(a) This subrule applies to all of the following contaminants:
(i) Contaminants subject to an MCL, action level, maximum residual disinfectant level, or treatment technique known as regulated contaminants.
(ii) Contaminants for which monitoring is required by ~~R 325.10717b(1)~~ **40 CFR 141.40, as referenced in R 325.10401a,** known as unregulated contaminants.
(iii) Disinfection by products or microbial contaminants for which monitoring is required by 40 C.F.R. §§141.142 and 141.143, except as provided under subrule (8)(a) of this rule, and which are detected in the finished water.
(b) The data relating to the contaminants specified in this subrule shall be displayed in 1 table or in several adjacent tables. Any additional monitoring results that a community supply chooses to include in its report shall be displayed separately.
(c) The data shall be derived from data collected to comply with EPA and state monitoring and analytical requirements during the previous calendar year with the following exceptions:

(i) If a ~~supplier~~ **supply** is allowed to monitor for regulated contaminants less often than once a year, then the table or tables shall include the date and results of the most recent sampling and the report shall include a brief statement indicating that the data presented in the report are from the most recent testing done in accordance with the regulations. Data older than 5 years need not be included.
(ii) Results of monitoring in compliance with 40 C.F.R. §§141.142 and 141.143 need only be included for 5 years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.
(d) For detected regulated contaminants in table 1 of R 325.10405, the table or tables shall contain all of the following information:
(i) The MCL for that contaminant expressed as a number equal to or greater than 1.0, as provided in table 1 of R 325.10405.
(ii) The MCLG for that contaminant expressed in the same units as the MCL.
(iii) If there is not an MCL for a detected contaminant, then the table shall indicate that there is a treatment technique, or specify the action level, applicable to that contaminant. The report shall also include the definitions for treatment technique or action level, or both, as appropriate, and specified in subrule (6) of this rule.
(iv) For contaminants subject to an MCL, except turbidity and total coliforms, the table shall indicate the highest contaminant level used to determine compliance with a drinking water standard and the range of detected levels as follows:
(A) If compliance with the MCL is determined annually or less frequently, then the table shall indicate the highest detected level at any sampling point and the range of detected levels expressed in the same units as the MCL.
(B) If compliance with the MCL is determined by calculating a running annual average of all samples taken at a sampling point, then the table shall indicate the highest average of any of the sampling points and the range of all sampling points expressed in the same units as the MCL. **For the MCLs for TTHM and HAA5 in R 325.10610(2) that are based on a locational running annual average, supplies shall include the highest locational running annual average for TTHM and HAA5 and the range of individual sample results for all monitoring locations expressed in the same units as the MCL. If more than 1 location exceeds the TTHM or HAA5 MCL, the supply shall include the locational running annual averages for all locations that exceed the MCL.**
(C) If compliance with the MCL is determined on a supply-wide basis by calculating a running annual average of all samples at all sampling points, then the table shall indicate the average and range of detection expressed in the same units as the MCL. **The supply shall include individual sample results for the IDSE conducted under R 325.10719g when determining the range of TTHM and HAA5 results to be reported in the annual consumer confidence report for the calendar year that the IDSE samples were taken.**
Note to subdivision (d)(iv) of this subrule: When rounding of results to determine compliance with the MCL is allowed, rounding may be done before multiplying the results by the factor listed in table 1 of R 325.10405.
(v) For turbidity reported ~~pursuant to~~ **under** R 325.10720 and R 325.10611b, the table shall indicate the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits for the filtration technology being used. The report shall include an explanation of the reasons for measuring turbidity.
(vi) For lead and copper, the table shall indicate the ninetieth percentile value of the most recent round of sampling and the number of sampling sites exceeding the action level.
(vii) For total coliform, the table shall indicate either of the following:

(A) The highest monthly number of positive samples for supplies collecting fewer than 40 samples per month.
(B) The highest monthly percentage of positive samples for supplies collecting not less than 40 samples per month.
(viii) For fecal coliform, the table shall indicate the total number of positive samples.
(ix) The table shall indicate the likely source or sources of detected contaminants to the best of the ~~supplier's~~ **supply's** knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments and the ~~supplier~~ **supply** shall use the information when it is available. If the ~~supplier~~ **supply** lacks specific information on the likely source, then the report shall include 1 or more of the typical sources for that contaminant listed in table 1 of R 325.10405 that are most applicable to the community water ~~system~~ **supply**.
(e) If a community water ~~system~~ **supply** distributes water to its customers from multiple hydraulically independent distribution systems that are fed by different raw water sources, then the table may contain a separate column for each service area and the report may identify each separate distribution system. Alternatively, supplier~~s~~ may produce separate reports tailored to include data for each service area.
(f) The table or tables shall clearly identify any data indicating violations of MCLs, MRDLs, or treatment techniques and the report shall contain a clear and readily understandable explanation of the violation including the length of the violation, the potential adverse health effects, and actions taken by the ~~supplier~~ **supply** to address the violation. The ~~supplier~~ **supply** shall use the relevant language in table 1 of R 325.10405 to describe the potential health effects.
(g) For detected unregulated contaminants for which monitoring is required, except Cryptosporidium, the table or tables shall contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring for unregulated contaminants.
(8) All of the following information shall be included on Cryptosporidium, radon, and other contaminants:
(a) If the ~~supplier~~ **supply** has performed any monitoring for Cryptosporidium, including monitoring performed to satisfy the requirements of 40 C.F.R. §141.143, which indicates that Cryptosporidium may be present in the source water or the finished water, the report shall include both of the following:
(i) A summary of the results of the monitoring.
(ii) An explanation of the significance of the results.
(b) If the supply has performed any monitoring for radon which indicates that radon may be present in the finished water, then the report shall include both of the following:
(i) The results of the monitoring.
(ii) An explanation of the significance of the results.
(c) If the ~~supplier~~ **supply** has performed additional monitoring which indicates the presence of other contaminants in the finished water, then the ~~supplier~~ **supply** is encouraged to report any results that may indicate a health concern. To determine if results may indicate a health concern, the ~~supplier~~ **supply** may determine if EPA has proposed a national primary drinking water regulation or issued a health advisory for that contaminant by calling the safe drinking water hotline (800-426-4791). EPA considers detections above a proposed MCL or health advisory level to indicate possible health concerns. For such contaminants, the report may include both of the following:
(i) The results of the monitoring.
(ii) An explanation of the significance of the results noting the existence of a health advisory or a proposed regulation.
(d) Levels of sodium monitored under R 325.10717b~~(2)~~ during the year covered by the report.
(9) For compliance with state drinking water standards, in addition to the requirements of subrule (7)(f) of this rule, the report shall note any violation that occurred during the year covered by the report for all

of the following requirements and include a clear and readily understandable explanation of the violation, any potential adverse health effects, and the steps the supply has taken to correct the violation:
(a) Monitoring and reporting of compliance data.
(b) For filtration and disinfection prescribed by R 325.10611, R 325.10611a, and R 325.10611b, supplier~~s~~ which have failed to install adequate filtration or disinfection equipment or processes, or have had a failure of such equipment or processes which constitutes a violation shall include the following language as part of the explanation of potential adverse health effects in the report: "Inadequately treated water may contain disease causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches."
(c) For lead and copper control requirements prescribed by R 325.10604f, supplier~~s~~ that fail to take ~~one~~ **1** or more actions prescribed by R 325.10604f(1)(d), R 325.10604f(2), R 325.10604f(3), R 325.10604f(4), or R 325.10604f(5) shall include the applicable language of table 1 of R 325.10405 for lead, copper, or both, in the report.
(d) For treatment techniques for acrylamide and epichlorohydrin prescribed by R 325.10604e, supplier~~s~~ that violate the requirements of R 325.10604e shall include the relevant language from table 1 of R 325.10405 in the report.
(e) Recordkeeping of compliance data.
(f) Special monitoring requirements prescribed by R 325.10717b.
(g) Violation of the terms of a variance, an exemption, or an administrative or judicial order.
(10) For variances and exemptions, if a ~~system~~ **supply** is operating under the terms of a variance or an exemption issued under section 20 of the act, then the report shall contain all of the following information:
(a) An explanation of the reasons for the variance or exemption.
(b) The date on which the variance or exemption was issued.
(c) A brief status report on the steps the supply is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption.
(d) A notice of any opportunity for public input in the review, or renewal, of the variance or exemption.
(11) The report shall include all of the following additional information:
(a) A brief explanation regarding contaminants which may reasonably be expected to be found in drinking water including bottled water. The explanation may include the language of paragraph**s** (i) ~~through~~ **to** (iii) of this subdivision or supplier~~s~~ may use their own comparable language. The report also shall include the language of paragraph (iv) of this subdivision.
(i) The sources of drinking water, both tap water and bottled water, including rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.
(ii) Contaminants that may be present in source water including all of the following:
(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
(B) Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.
(iii) To ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water supplies. FDA regulations establish limits for contaminants in bottled water that shall provide the same protection for public health.
(iv) Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the United States environmental protection agency's safe drinking water hotline (800-426-4791).
(b) The report shall include the telephone number of the owner, operator, or designee of the community water ~~system~~ **supply** as a source of additional information concerning the report.
(c) In communities that have more than 10% non-English speaking residents, the report shall contain information in the appropriate language or languages regarding the importance of the report or the report shall contain a telephone number or address where residents may contact the ~~supplier~~ **supply** to obtain a translated copy of the report or assistance in the appropriate language.
(d) The report shall include information about opportunities for public participation in decisions by the supplier~~s~~ that may affect the quality of the water; for example, time and place of regularly scheduled board meetings.
(e) The ~~supplier~~ **supply** may include such additional information as it determines necessary for public education consistent with, and not detracting from, the purpose of the report.
(f) Groundwater supplies required to comply with groundwater provisions of R 325.10612 shall comply with all of the following:
(i) A groundwater supply that receives notice from the department of a significant deficiency or notice from a laboratory of a fecal indicator-positive groundwater source sample that is not invalidated by the department under R 325.10739(3) shall inform its customers of any significant deficiency that is uncorrected at the time of the next report or of any fecal indicator-positive groundwater source sample in the next report. The groundwater supply shall continue to inform the public annually until the department determines that particular significant deficiency is corrected or the fecal contamination in the groundwater source is addressed under R 325.10612a(1). Each report shall include all of the following elements:
(A) The nature of the particular significant deficiency or the source of the fecal contamination, if the source is known, and the date the significant deficiency was identified by the department or the dates of the fecal indicator-positive groundwater source samples.
(B) If the fecal contamination in the groundwater source has been addressed under R 325.10612a(1) and the date of the action.
(C) For each significant deficiency or fecal contamination in the groundwater source that has not been addressed under R 325.10612a(1), the department-approved plan and schedule for correction, including interim measures, progress to date, and any interim measures completed.
(D) If the groundwater supply receives notice of a fecal indicator-positive groundwater source sample that is not invalidated by the department under R 325.10739(3), the potential health effects using the health effects language of Table 1 of R 325.10405.
(ii) If directed by the department, a groundwater supply with significant deficiencies that have been corrected before the next report is issued shall inform its customers of the significant deficiency, how the deficiency was corrected, and the date of correction under paragraph (i) of this subdivision.

R 325.10414 Annual consumer confidence reporting; required additional health information.
Rule 414. (1) All reports shall prominently display the following language: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people may seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)."
(2) A **community water** supply that detects arsenic at levels above 0.005 mg/l and up to and including 0.010 mg/l shall do either of the following:
(a) Include in its report a short informational statement about arsenic, using language, such as, "While your drinking water meets EPA's standard for arsenic, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems."
(b) Write its own educational statement, but only in consultation with the department.
(3) A **community water** supply that detects nitrate at levels above 5 mg/l, but below the MCL shall do either of the following:
(a) Include a short informational statement about the impacts of nitrate on children using language, such as, "Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you are encouraged to ask advice from your health care provider."
(b) Write its own educational statement, but only in consultation with the department.
(4)~~ Supplies that detect lead above the action level in more than 5%, and up to and including 10%, of homes sampled shall do either of the following~~ **Both of the following provisions concerning lead specific information apply to every report**:
(a) **A community water supply shall include** ~~Include~~ a short informational statement about ~~the special impact of~~ lead **in drinking water and its effects** on children~~ using language, such as, "Infants and young children are typically more vulnerable to lead in drinking water than the general population~~. **The statement shall include the following information: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.** ~~It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)."~~

(b) **A community water supply may write** ~~Write~~ its own educational statement, but only in consultation with the department.
~~(5) Beginning in the report due by July 1, 2002 and ending January 22, 2006, a supplier of a community water system that detects arsenic above 0.010 mg/l and up to and including 0.05 mg/l shall include the arsenic health effects language prescribed by table 1 of R 325.10405.~~

R 325.10415 Annual consumer confidence reporting; report delivery; recordkeeping.
Rule 415. (1) Except as provided in subrule (7) of this rule, each ~~supplier of a~~ community water ~~system~~ **supply** shall mail or otherwise directly deliver 1 copy of the report to each customer.
(2) The ~~supplier~~ **supply** shall make a good faith effort to reach consumers who do not get water bills, using means recommended by the department. For the good faith effort to be adequate, the ~~supplier~~ **supply** shall tailor the effort to reach the consumers who are served by the supply but are not bill paying customers such as renters or workers. A good faith effort to reach consumers may include~~, but not be limited to,~~ a mix of any of the following methods appropriate to the particular supply:
(a) Posting the report on the Internet.
(b) Mailing to postal patrons in metropolitan areas.
(c) Advertising the availability of the report in the news media.
(d) Publication in a local newspaper.
(e) Posting in public places such as cafeterias or lunch rooms of public buildings.
(f) Delivery of multiple copies for distribution by single biller customers such as apartment buildings or large private employers.
(g) Delivery to community organizations.
(3) Not later than the date the supply is required to distribute the report to its customers, each ~~supplier of a~~ community water ~~system shall mail~~ **supply shall deliver** a copy of the report to the department, followed within 3 months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the department.
(4) Not later than the date the ~~supplier~~ **supply** is required to distribute the report to its customers, each ~~supplier of a~~ community water ~~system~~ **supply** shall deliver the report to the local health department that has jurisdiction in the county in which the ~~system~~ **supply** is located. If the ~~system's~~ **supply's** service area is located in more than 1 county, then the report shall be delivered to all appropriate local health departments. In addition, each ~~supplier of a~~ community water ~~system~~ **supply** shall deliver the report to any other agency or clearinghouse identified in writing by the department.
(5) Each ~~supplier of a~~ community water ~~system~~ **supply** shall make its report available to the public upon request.
(6) Each ~~supplier of a~~ community water ~~system~~ **supply** serving 100,000 or more persons shall post its current year's report to a publicly accessible site on the Internet.
(7) The governor or his or her designee, for the purposes of waiving the mailing requirement, may waive the requirement of subrule (1) of this rule for community water supplies serving fewer than 10,000 persons.
(a) ~~Suppliers of systems~~ **Supplies** serving fewer than 10,000 persons that elect to use the waiver shall do all the following:
(i) Publish the report in 1 or more local newspapers serving the area in which the supply is located.
(ii) Inform the customers that the report will not be mailed, either in the newspapers in which the report is published or by other means approved by the department.
(iii) Make the report available to the public upon request.

(b) ~~Suppliers of systems~~ **Supplies** serving 500 or fewer persons that elect to use the waiver may forego the requirements of subdivision (a) of this subrule if they provide notice at least once per year to their customers by mail, door-to-door delivery, or by posting in an appropriate location that the report is available upon request.
(8) A ~~supplier of a system~~ **supply** subject to R 325.10411 to R 325.10415 shall retain copies of its consumer confidence report for not less than 3 years.

PART 5. TYPES OF PUBLIC WATER SUPPLIES

R 325.10502 Classification of public water supplies.
Rule 502. (1) For purposes of implementing the act, public water supplies are classified by the department into 3 types as follows:
(a) Type I: All community supplies are classified as type I public water supplies.
(b) Type II: All noncommunity supplies are classified as type II public water supplies.
(c) Type III: All water supplies which are not type I or type II public water supplies shall be classified as type III public water supplies.
(2) Type II public water supplies are further classified by the department as follows:
(a) Type IIa: Type IIa public water supplies are type II public water supplies with an average daily water production for the maximum month equal to or greater than 20,000 gallons per day.
(b) Type IIb: Type IIb public water supplies are type II public water supplies with an average daily water production for the maximum month of less than 20,000 gallons per day.
(3) When a ~~supplier of water~~ **public water supply** is unable to determine average daily water production, the department may use other criteria based on similar public water supplies to make a determination of classification for purposes of subrule (2) **of this rule**.

R 325.10503 ~~Two or more waterworks~~ **Waterworks** systems under same ownership or operation.
Rule 503. **(1)** Two or more waterworks systems owned or operated by the same person at the same general location, not individually meeting the definition of a community supply or a noncommunity supply, but collectively meeting the definition of a community supply or a noncommunity supply, shall be considered by the department to be a single public water supply.
(2) A waterworks system meeting the definition of a community or noncommunity water supply and a waterworks system not meeting the definition of community or noncommunity water supply in the same general location collectively owned or operated by the same person may be considered by the department to be a single public water supply.

R 325.10504 General requirements of type I public water supplies.
Rule 504. ~~Suppliers of water of~~ **A** type I public water ~~supplies~~ **supply** shall meet the following general requirements and other specific requirements as prescribed by the act and these rules:
(a) ~~Certified~~ **Obtain certified** operators of treatment systems and distribution systems ~~are required~~.
(b) ~~Suppliers of water shall monitor~~ **Monitor** for contaminants at prescribed frequencies as required by part 7 of these rules.
(c) ~~Suppliers of water shall submit~~ **Submit** waterworks system operation reports and ~~shall~~ maintain records.
(d) ~~Except for those type I public water supplies serving facilities which are licensed annually by the department, including, but not limited to, mobile home parks and health care facilities, suppliers of water shall comply~~ **Comply** with the provisions of part 14 of these rules~~,~~ and ~~suppliers of water of all type I public water supplies shall~~ comply with all applicable state and local plumbing codes. **Public**

water supplies that existed before the effective date of this rule that serve facilities which are licensed by the state, including manufactured housing communities and health care facilities, are not required to comply with part 14 of these rules until January 1, 2016.
(e) ~~Owners of type I public water supplies shall submit~~ **Submit** plans and specifications and obtain permits from the department in accordance with the provisions of the act and part 13 of these rules~~, except those type I public water supplies serving less than 15 living units~~.

R 325.10505 Type II public water supplies generally.
Rule 505. A ~~supplier of water of a~~ type II public water supply shall meet all of the following general requirements and other specific requirements as prescribed by the act and these rules:
(a) ~~Operators of~~ **Obtain operators that are certified in** treatment systems where treatment is employed ~~to protect the public health shall be certified~~ **that may affect public health**.
(b) ~~A supplier of water shall provide~~ **Provide** a source of water that is in compliance with the requirements of part 8 of these rules or a source that is approved by the department. In either case, the source of water shall ~~be in compliance~~ **comply** with all of the requirements of parts **6 and** 10 ~~and 19~~ or parts 24, 25, and 26 of these rules.
(c) ~~A supplier of water shall monitor~~ **Monitor** for contaminants at prescribed frequencies as required by part 7 of these rules.
(d) ~~A supplier of water shall submit~~ **Submit** waterworks system operation reports where treatment is employed ~~to protect the~~ **that may affect** public health and shall maintain records as required in part 15 of these rules.
(e) ~~A supplier of water shall comply~~ **Comply** with all applicable state and local plumbing codes.
(f) ~~An owner of a type II public water supply shall obtain~~ **Obtain** permits from the department in accordance with the provisions of the act and part 13 of these rules.

R 325.10506 Type III public water supplies generally.
Rule 506. A ~~supplier of water of a~~ type III public water supply shall meet all of the following general requirements and other specific requirements as prescribed by the act and these rules:
(a) ~~A supplier of water shall provide~~ **Provide** groundwater sources that are in compliance with the requirements of part 8 of these rules or, alternatively, if approved by the department, the applicable sections of parts 24, 25, and 26 of these rules.
(b) If required by the department, ~~a supplier of water shall~~ monitor for contaminants at prescribed frequencies as required by part 7 of these rules.
(c) ~~A supplier of water shall comply~~ **Comply** with all applicable state and local plumbing codes.

PART 6. STATE DRINKING WATER STANDARDS AND ANALYTICAL TECHNIQUES

R 325.10601a Compliance with standards to be determined in accordance with monitoring requirements; analytical results to be performed by certified laboratories.
Rule 601a. (1) Compliance with the drinking water standards specified in this part shall be determined in accordance with the monitoring requirements ~~set forth~~ in part 7 of these rules.
(2) Analytical results that are used to determine compliance with ~~the MCLs~~ **state drinking water standards** established in this part shall be performed by department or EPA-certified or provisionally certified laboratories**, except that measurements for alkalinity, bromide, calcium, daily chlorite samples at the entrance to the distribution system, conductivity, magnesium, orthophosphate, pH, residual disinfectant concentration, silica, specific ultraviolet absorbance, temperature, and turbidity may be performed by personnel acceptable to the department.**

R 325.10602 MCLs for total coliform bacteria.
Rule 602. All of the following provisions apply to the MCLs for total coliform bacteria for all public water supplies:
(a) For a water supply that collects 40 or more samples per month ~~pursuant to the provisions of~~ **under** R 325.10705~~(2) and R 325.10706(2)~~ **to R 325.10707**, the supply is in compliance with the MCL for total coliforms if not more than 5.0% of the samples collected during a month are total coliform positive.
(b) For a water supply that collects less than 40 samples per month, the supply is in compliance with the MCL for total coliforms if not more than 1 sample collected during a month is total coliform positive.
(c) Any fecal coliform positive repeat sample, an E. coli positive repeat sample, or any total coliform positive repeat sample following a fecal coliform positive or E. coli positive routine sample constitutes a violation of the MCL for total coliforms.
(d) In addition to the requirements of subdivision (a) of this rule, the department may determine an MCL violation has occurred, and shall notify a ~~supplier of water~~ **supply**, when the concentration of positive total coliform samples in a portion of the water system constitutes a public health hazard.
(e) Samples that are collected to meet the repeat monitoring requirements of R 325.10707 are not considered special purpose samples and shall be used to determine compliance with the MCL for total coliform.

R 325.10604c MCL for inorganic chemicals.
Rule 604c. (1) Except as specified, the maximum contaminant levels and effective dates for inorganic chemicals in table 1 of this rule apply to community ~~water~~ and nontransient noncommunity water supplies. **These pubic water supplies are considered "water supplies" or "supplies" in this rule.**

Table 1 MCLs for inorganic chemicals

Contaminant	Maximum Contaminant Level in mg/l	Effective Date
Antimony	0.006	January 17, 1994.
Arsenic~~1~~	0.010	~~[effective date of this rule]~~ **April 6, 2005.**
Asbestos	7 million fibers per liter (longer than 10 um)	July 30, 1992.
Barium	2	January 1, 1993.
Beryllium	0.004	January 17, 1994.
Cadmium	0.005	July 30, 1992.
Chromium	0.1	July 30, 1992.
Cyanide (as free cyanide)	0.2	January 17, 1994.
Fluoride~~2~~**1**	~~4~~ **4.0**	~~October 2, 1987.~~ **[effective date of this rule]**
Mercury	0.002	July 30, 1992.
Nickel	MCL withdrawn	May 30, 2002
Nitrate (as Nitrogen)~~3~~**2**	10	July 30, 1992.
Nitrite (as Nitrogen)~~3~~**2**	1	July 30, 1992.
Total Nitrate and Nitrite (as Nitrogen)[3]	10	July 30, 1992.
Selenium	0.05	July 30, 1992.
Thallium	0.002	January 17, 1994.

~~[1] The MCL of 0.010 mg/l is effective for compliance purposes on January 23, 2006 for community and nontransient noncommunity water supplies. Until January 23, 2006, the MCL of 0.05 mg/l applies only to community water supplies. Sampling results shall be reported to the nearest 0.001 mg/l beginning January 23, 2006. After January 23, 2006 this footnote no longer applies.~~

~~[2]~~ [1] The MCL and effective date apply to only community water supplies.

~~[3]~~ [2] The MCLs and effective dates apply to community and noncommunity water supplies.

(2) Compliance with the MCL requirements of this rule shall be determined based on the analytical results that are obtained at each sampling point as specified in R 325.10710. If 1 sampling point is in violation of an MCL, then the **water** supply is in violation of the MCL. All of the following provisions apply:

(a) For supplies monitoring more than once per year, compliance with the MCL for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by a running annual average at each sampling point.

(b) Supplies monitoring annually or less frequently whose sample result exceeds the MCL for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium shall begin quarterly sampling. Compliance with the MCL shall be based on the running annual average. For the purpose of calculating the running annual average, the initial exceedance shall be considered the result for the first quarter. If the department requires a confirmation sample under R 325.10710(9), then the average of the initial exceedance and the confirmation sample shall be considered the result for the first quarter. The supply shall not be considered in violation of the MCL until it has completed 1 year of quarterly sampling.

(c) If any sample result causes the running annual average to exceed the MCL at any sampling point, then the supply is out of compliance with the MCL immediately.

(d) If a supply fails to collect the required number of samples, then compliance shall be based on the total number of samples collected.

(e) If a sample result is less than the detection limit, then zero shall be used to calculate the annual average.

(f) Compliance with the MCLs for nitrate and nitrite is determined based on 1 sample if the levels of these contaminants are below the MCLs. If the level of nitrate or nitrite or the combination of nitrate and nitrite is more than the MCLs in the initial sample, then a confirmation sample is required under R 325.10710(9)(b) and (c), and compliance shall be determined based on the average of the initial and confirmation samples.

(3) The department may allow nitrate levels above 10 milligrams per liter but not more than 20 milligrams per liter in a noncommunity water supply if the supply demonstrates, to the satisfaction of the department, all of the following:

(a) A permanent alternate source of water meeting state drinking water standards can not be obtained.

(b) The water will not be available to children under 6 months of age.

(c) Water meeting state drinking water standards, such as bottled water, will be provided to those who request it.

(d) There is continuous posting at all drinking water outlets available to the public that nitrate levels exceed 10 mg/l and the potential health effects of exposure as specified in part 4 of these rules.

(e) Adverse health effects are not documented.

R 325.10604f Treatment techniques for lead and copper.
Rule 604f. (1) Treatment techniques for lead and copper are as follows:
(a) ~~The requirements of this rule constitute the drinking water standards for lead and copper. Unless otherwise indicated, this rule applies to community water systems and nontransient, noncommunity water systems.~~ **This rule, R 325.10410, and R 325.10710a to R 325.10710d are the requirements for lead and copper and apply to community and nontransient noncommunity water supplies. These public water supplies are considered "water supplies" or "supplies" in this rule, R 325.10410, and R 325.10710a to R 325.10710d.**
(b) These ~~regulations~~ **rules** establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples that are collected at consumers' taps.
(c) The lead action level is exceeded if the ninetieth percentile lead level is more than 0.015 milligrams per liter (mg/l) in tap water samples collected during a monitoring period conducted under R 325.10710a. The copper action level is exceeded if the ninetieth percentile copper level is more than 1.3 mg/l in tap water samples collected during a monitoring period conducted under R 325.10710a.
The ninetieth percentile lead and copper levels shall be computed as follows:
(i) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.
(ii) The number of samples taken during the monitoring period shall be multiplied by 0.9.
(iii) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (ii) of this subdivision is the ninetieth percentile contaminant level.
(iv) If a total of 5 samples are collected per monitoring period, the ninetieth percentile is computed by taking the average of the highest and second highest concentrations. ~~If fewer than 5 samples are collected, the ninetieth percentile is the highest concentration in 1 sample for purposes of this rule.~~
(v) For a water supply that has been allowed by the department to collect fewer than 5 samples under R 325.10710a(3), the sample result with the highest concentration is considered the 90th percentile value.
(d) A ~~supplier~~ **supply** shall install and operate optimal corrosion control treatment on the system under subrules (2) and (3) of this rule. A ~~system~~ **supply** that is in compliance with the applicable corrosion control treatment requirements specified by the department under subrules (2) and (3) of this rule is in compliance with the treatment requirement.
(e) ~~If a system exceeds~~ **A supply exceeding** the lead or copper action level~~, the supplier~~ shall implement all applicable source water treatment requirements specified by the department under subrule (4) of this rule.
(f) ~~If a system exceeds~~ **A supply exceeding** the lead action level after implementation of applicable corrosion control and source water treatment requirements~~, the supplier~~ shall complete the lead service line replacement requirements contained in subrule (5) of this rule.
(g) **Under R 325.10410, all water supplies shall provide a consumer notice of lead tap water monitoring results to persons served at the sites (taps) that are tested. A supply exceeding the lead action level** ~~If a system exceeds the lead action level, the supplier~~ shall implement the public education requirements specified in R 325.10410.

(h) Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subrule shall be completed ~~pursuant to~~ **under** R 325.10605, R 325.10710a, R 325.10710b, and R 325.10710c.
(i) A ~~supplier~~ **supply** shall report, to the department, the information required by the treatment provisions of this subrule and R 325.10710d.
(j) A ~~supplier~~ **supply** shall maintain records under R 325.11506(1)(e).
(k) Failure to comply with the applicable requirements of this rule, R 325.10410, R 325.10710a, R 325.10710b, R 325.10710c, R 325.10605, R 325.10710d, and R 325.11506(1)(e) constitutes a violation of ~~the drinking water standards~~ **these rules** for lead or copper, as applicable.
(2) Corrosion control treatment steps apply to small, medium size, and large water ~~systems~~ **supplies** as follows:
(a) A ~~supplier~~ **supply** shall complete the applicable corrosion control treatment requirements described in subrule (3) of this rule by the deadlines established in this rule. ~~The supplier of a~~ **A** large water ~~system~~ **supply** (serving more than 50,000 persons) shall complete the corrosion control treatment steps specified in subdivision (d) of this subrule, unless the ~~supplier~~ **supply** is considered to have optimized corrosion control under subdivision (b)(ii) or (iii) of this subrule. ~~The supplier of a~~ **A** small water system (serving 3,300 or fewer persons) ~~or~~ **and** a medium size water system (serving more than 3,300, but fewer than 50,001 persons) shall complete the corrosion control treatment steps specified in subdivision (e) of this subrule unless the ~~supplier~~ **supply** is considered to have optimized corrosion control under subdivision (b)(i), (ii), or (iii) of this subrule.
(b) A ~~supplier~~ **supply** is considered to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in subrule (3) of this rule if the ~~system~~ **supply** is in compliance with 1 of the criteria specified in paragraphs (i) ~~through~~ **to** (iii) of this subdivision. A ~~supplier~~ **supply** which is considered to have optimized corrosion control under this subdivision and which has treatment in place shall continue to operate and maintain optimal corrosion control treatment and meet the requirements that the department determines appropriate to ensure optimal corrosion control treatment is maintained. All of the following provisions apply to being considered to have optimized corrosion control:
(i) A ~~supplier of a~~ small or medium size water ~~system~~ **supply** is considered to have optimized corrosion control if the ~~system~~ **supply** is in compliance with the lead and copper action levels during each of 2 consecutive 6-month monitoring periods during which monitoring is conducted under R 325.10710a.
(ii) A ~~supplier~~ **water supply** may be considered by the department to have optimized corrosion control treatment if the ~~supplier~~ **supply** demonstrates, to the satisfaction of the department, that it has conducted activities equivalent to the corrosion control steps applicable to the system under subrule (3) of this rule. ~~Suppliers~~ **Supplies** considered to have optimized corrosion control under this subdivision shall operate in compliance with the department designated optimal water quality control parameters under subrule (3)(f) of this rule and continue to conduct lead and copper tap and water quality parameter sampling under R 325.10710a(4)(c) and R 325.10710b(4), respectively. A ~~supplier~~ **supply** shall provide the department with all of the following information to support a determination under this subdivision:
(A) The results of all test samples collected for each of the water quality parameters specified in subrule (3)(c)(iii) of this rule.
(B) A report that explains the test methods used by the ~~supplier~~ **water supply** to evaluate the corrosion control treatments listed in subrule (3) of this rule, the results of all tests conducted, and the basis for the ~~supplier's~~ **supply's** selection of optimal corrosion control treatment.
(C) A report that explains how corrosion control has been installed and how it is being maintained to ensure minimal lead and copper concentrations at consumers' taps.

(D) The results of tap water samples collected under R 325.10710a at least once every 6 months for 1 year after corrosion control has been installed.
(iii) A ~~supplier~~ **water supply** is considered to have optimized corrosion control ~~for the system~~ if it submits results of tap water monitoring conducted under R 325.10710a and source water monitoring conducted under R 325.10710c that demonstrates, for 2 consecutive 6-month monitoring periods, that the difference between the ninetieth percentile tap water lead level computed under subrule (1)(c) of this rule and the highest source water lead concentration is less than the practical quantitation level for lead. In addition, all of the following provisions apply:
(A) A ~~supplier of a system where the~~ **supply whose** highest source water lead level is below the method detection limit is considered to have optimized corrosion control under this paragraph if the ~~system's~~ **supply's** ninetieth percentile tap water lead level is less than or equal to the practical quantitation level for lead for 2 consecutive 6-month monitoring periods.
(B) A ~~supplier~~ **water supply** considered to have optimized corrosion control under this paragraph shall continue monitoring for lead and copper at the tap not less frequently than once every 3 calendar years using the reduced number of sites specified in R 325.10710a(3) and collecting the samples at times and locations specified in R 325.10710a(4)(d)(iv).
(C) A ~~supplier~~ **water supply** considered to have optimized corrosion control ~~pursuant to~~ **under** this subdivision shall notify the department, in writing, ~~pursuant to~~ **under** R 325.10710d(a)(iii) of a**n upcoming long-term** change in treatment or ~~the~~ addition of a new source **as described in that subdivision**. **The department shall review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water supply.** The department may require the ~~supplier~~ **supply** to conduct additional monitoring or to take other action the department considers appropriate consistent with the requirements of R 325.10604f(2) to ensure that the ~~supplier~~ **supply** maintains minimal levels of corrosion in the distribution system.
(D) As of July 12, 2001, a ~~supplier~~ **supply** is not considered to have optimized corrosion control under this subdivision, and shall implement corrosion control treatment ~~pursuant to~~ **under** subparagraph (E) of this paragraph unless it meets the copper action level.
(E) A ~~supplier~~ **supply** that is no longer considered to have optimized corrosion control under this subdivision shall implement corrosion control treatment under the deadlines in subdivision (e) of this subrule. ~~The supplier of a~~ **A** large water ~~system~~ **supply** shall adhere to the schedule specified in that subdivision for medium size water ~~systems~~ **supplies**, with the time periods for completing each step being triggered by the date the ~~supplier~~ **supply** is no longer considered to have optimized corrosion control under this subdivision.
(c) If a small or medium size water ~~system~~ **supply** exceeds the lead or copper action level and the ~~supplier~~ **supply** is required to perform the corrosion control treatment steps, the ~~supplier~~ **supply** may cease completing the treatment steps when the ~~system~~ **supply** is in compliance with both action levels during each of 2 consecutive monitoring periods conducted under R 325.10710a and the ~~supplier~~ **supply** submits the results to the department. If the ~~system~~ **supply** thereafter exceeds the lead or copper action level during a monitoring period, the ~~supplier~~ **supply** shall recommence the applicable treatment steps beginning with the first treatment step that was not previously completed in its entirety. The department may require a ~~supplier~~ **supply** to repeat treatment steps that were previously completed by the ~~supplier~~ **supply** if the department determines that this is necessary to properly implement the treatment requirements of this rule. **The department shall notify the supply in writing of the determination and explain the basis of the decision.** If a small or medium size water ~~system~~ **supply** exceeds the lead or copper action level, the ~~supplier~~ **supply**, including ~~suppliers~~ **supplies** considered to have optimized corrosion control under subdivision (b) of this subrule, shall implement corrosion control treatment steps under subdivision (e) of this subrule.

(d) Except as provided in subdivision~~s~~ (b)(ii) and (iii) of this subrule, a ~~supplier of~~ a large water ~~system~~ **supply** shall complete all of the following corrosion control treatment steps by the indicated dates:
(i) Step 1: A ~~supplier~~ **supply** shall conduct initial monitoring during 2 consecutive 6-month monitoring periods by January 1, 1993.
(ii) Step 2: A ~~supplier~~ **supply** shall complete corrosion control studies by July 1, 1994.
(iii) Step 3: By January 1, 1997, a ~~supplier~~ **supply** shall install optimal corrosion control treatment as designated by the department.
(iv) Step 4: A ~~supplier~~ **supply** shall complete follow-up sampling by January 1, 1998.
(v) Step 5: A ~~supplier~~ **supply** shall operate in compliance with the department specified optimal water quality control parameters and continue to conduct tap sampling.
(e) Except as provided in subdivision (b) of this subrule, ~~the suppliers of~~ small and medium size water ~~systems~~ **supplies** shall complete all of the following corrosion control treatment steps by the indicated time periods:
(i) Step 1: A ~~supplier~~ **supply** shall conduct initial tap sampling **under R 325.10604f(3)(a)** until the ~~system~~ **supply** either exceeds the lead or copper action level or becomes eligible for reduced monitoring. The ~~supplier of a system~~ **supply** that exceeds the lead or copper action level shall recommend optimal corrosion control treatment within 6 months after the **end of the monitoring period during which it** ~~system~~ exceeds 1 of the action levels.
(ii) Step 2: Within 12 months after **the end of the monitoring period during which a supply** ~~a system~~ exceeds the lead or copper action level, the department may require the ~~supplier~~ **supply** to perform corrosion control studies **under subdivision (3)(b) of this rule**. **If the department does not require the supply to perform the studies, the department shall specify optimal corrosion control treatment under subdivision (3)(d) of this rule within the following timeframes:**
(A) For medium-size supplies, within 18 months after the end of the monitoring period during which the supply exceeds the lead or copper action level.
(B) For small supplies, within 24 months after the end of the monitoring period during which the supply exceeds the lead or copper action level.
(iii) Step 3: If the department requires a ~~supplier~~ **supply** to perform corrosion control studies **under subdivision (3)(b) of this rule**, the ~~supplier~~ **supply** shall complete the studies within 18 months after the department requires that the studies be conducted. **If the supply has performed corrosion control studies under paragraph (ii) of this subdivision, the department shall designate optimal corrosion control treatment under subdivision (3)(d) of this rule within 6 months after completion of the corrosion control studies.**
(iv) Step 4: A ~~supplier~~ **supply** shall install optimal corrosion control treatment within 24 months after the department designates the treatment.
(v) Step 5: A ~~supplier~~ **supply** shall complete follow-up sampling **under R 325.10710a(4)(b)** within 36 months after the department designates optimal corrosion control treatment. **The department shall review the supply's installation of treatment and designate optimal water quality control parameters under R 325.10604f(3)(d)(ii) within 6 months after the supply's completion of follow-up sampling.**
(vi) Step 6: A ~~supplier~~ **supply** shall operate in compliance with the department designated optimal water quality control parameters **under R 325.10604f(3)(d)(ii)** and continue to conduct tap sampling **under R 325.10710a(4)(c) and R 325.10710b(6)**.
(3) A ~~supplier~~ **water supply** shall complete all the corrosion control treatment requirements described in this subrule that are applicable to the system under subrule (2) of this rule**. All of the following apply**:
(a) Based on the results of lead and copper tap monitoring and water quality parameter monitoring, ~~the suppliers of~~ small and medium size water systems that exceed the lead or copper action level shall

recommend the installation of 1 or more of the corrosion control treatments listed in subdivision (c)(i) of this subrule that the ~~supplier~~ **supply** believes constitutes optimal corrosion control for that system. The department may require the ~~supplier~~ **supply** to conduct additional water quality parameter monitoring under R 325.10710b(4) to assist the department in reviewing the ~~supplier's~~ **supply's** recommendation.
(b) When required by the department, ~~the supplier of~~ a small or medium size water ~~system~~ **supply** that exceeds the lead or copper action level shall perform corrosion control studies under subdivision (c) of this subrule to identify optimal corrosion control treatment for the ~~system~~ **supply**.
(c) Perform corrosion control studies as follows:
(i) A ~~supplier~~ **water supply** that performs corrosion control studies shall evaluate the effectiveness of each of the following treatments and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that ~~system~~ **supply**:
(A) Alkalinity and pH adjustment.
(B) Calcium hardness adjustment.
(C) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.
(ii) The ~~supplier~~ **water supply** shall evaluate each of the corrosion control treatments using pipe rig/loop tests, metal coupon tests, partial system tests, or analyses based on documented analogous treatments with other ~~systems~~ **water supplies** of similar size, water chemistry, and distribution system configuration.
(iii) A ~~supplier~~ **water supply** shall measure all of the following water quality parameters in tests conducted under this paragraph before and after evaluating the corrosion control treatments listed in paragraph (i)(A) to (C) of this subdivision:
(A) Lead.
(B) Copper.
(C) pH.
(D) Alkalinity.
(E) Calcium.
(F) Conductivity.
(G) Orthophosphate, when an inhibitor containing a phosphate compound is used.
(H) Silicate, when an inhibitor containing a silicate compound is used.
(I) Water temperature.
(iv) The ~~supplier~~ **water supply** shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and shall document the constraints with 1 or both of the following:
(A) Data and documentation demonstrating that a particular corrosion control treatment has adversely affected other water treatment processes when used by another ~~system~~ **water supply** with comparable water quality characteristics.
(B) Data and documentation demonstrating that the ~~supplier~~ **supply** has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.
(v) A ~~supplier~~ **water supply** shall evaluate the effect of the chemicals used for corrosion control treatment in other water quality treatment processes.
(vi) On the basis of an analysis of the data generated during each evaluation, a ~~supplier~~ **water supply** shall recommend, to the department, in writing, the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that ~~system~~ **supply**. The ~~supplier~~ **water system** shall provide a rationale for its recommendation together with all supporting documentation specified in paragraphs (i) to (v) of this subdivision.

(d) Department designation of optimal corrosion control treatment shall be as follows:
(i) Based on consideration of available information, including, where applicable, studies performed under subdivision (c) of this subrule and a ~~supplier's~~ **supply's** recommended treatment alternative, the department will either approve the corrosion control treatment option recommended by the ~~supplier~~ **supply** or will designate alternative corrosion control treatment from the treatment specified in subdivision (c)(i) of this subrule. When designating optimal treatment, the department shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.
(ii) **The department shall notify the supply of its decision on optimal corrosion control treatment in writing and explain the basis for this determination.** If the department requests additional information to aid its review, the ~~supplier~~ **water supply** shall provide the information.
(e) Each ~~supplier~~ **supply** shall properly install and operate, throughout its distribution system, the optimal corrosion control treatment designated by the department.
(f) The department shall evaluate the results of all lead and copper tap samples and water quality control parameter samples submitted by the water supply and determine whether the supply has properly installed and operated the optimal corrosion control treatment designated by the department in subdivision (d) of this subrule. Upon reviewing the results of tap water and water quality control parameter monitoring by the supply, both before and after the supply installs optimal corrosion control treatment, the department shall designate all of the following:
(i) A minimum value or a range of values for pH measured at each entry point to the distribution system.
(ii) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system, that the department determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system.
(iii) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system.
The department may designate values for additional water quality control parameters determined by the department to reflect optimal corrosion control for the supply. The department shall notify the supply in writing of these determinations and explain the basis for its decision.
~~(f)~~ **(g)** All ~~suppliers~~ **supplies** optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the department, under this subdivision for all samples collected under R 325.10710b(6) ~~through~~ **to** (8). Compliance with the requirements of this subdivision shall be determined every 6 months, as specified under R 325.10710b(6). A ~~system~~ **water system** is out of compliance with the requirements of this subdivision for a 6-month period if it has excursions for a department specified parameter on more than 9 days during the period. An excursion occurs when the daily value for 1 or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the department. The department may delete results of obvious sampling errors from this calculation. Daily values are calculated as follows:
(i) On days when more than 1 measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both.
(ii) On days when only 1 measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(iii) On days when a measurement is not collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

~~(g)~~ **(h)** The department's determination of the optimal corrosion control treatment specified in subdivision (d) of this subrule or optimal water quality control parameters may be modified by the department. If a request for modification is by a ~~supplier~~ **supply** or other interested person, the request shall be in writing, shall explain why the modification is appropriate, and shall provide supporting documentation. The department may modify its determination where it concludes that a change is necessary to ensure that the ~~supplier~~ **supply** continues to optimize corrosion control treatment.

(4) A ~~supplier~~ **water supply** shall complete the applicable source water monitoring and treatment requirements by the following deadlines:

(a) The deadlines for completing source water treatment steps are as follows:

(i) Step 1: ~~The supplier of a system that exceeds~~ **A supply exceeding** the lead or copper action level shall complete lead and copper source water monitoring **under R 325.10710c(2)** and make a treatment recommendation to the department **under paragraph (b)(i) of this subdivision** ~~within 6 months~~ after **the end of the monitoring period during which** ~~exceeding~~ the lead or copper action level **was exceeded**. **The department shall make a determination regarding source water treatment under paragraph (b)(ii) of this subrule within 6 months after submission of monitoring results under this paragraph.**

(ii) Step 2: If the department requires installation of source water treatment, the ~~supplier~~ **supply** shall install the treatment within 24 months after the date of written notification by the department **under paragraph (i) of this subdivision**.

(iii) Step 3: The ~~supplier~~ **supply** shall complete follow-up tap water monitoring **under R 325.10710a(4)(b)** and source water monitoring **under R 325.10710c(3)** within 36 months after the date of written notification by the department **under paragraph (i) of this subdivision**. **The department shall review the supply's installation and operation of source water treatment and specify maximum permissible source water levels under R 325.10604f(4)(b)(iv) within 6 months after completion of the follow-up tap water monitoring and source water monitoring of this paragraph.**

(iv) Step 4: A ~~supplier~~ **supply** shall operate ~~a system~~ in compliance with the department specified maximum permissible lead and copper source water levels and shall continue source water monitoring.

(b) Source water treatment requirements are as follows:

(i) ~~The supplier of a~~ **A** system that exceeds the lead or copper action level shall recommend, in writing, to the department, the installation and operation of 1 of the source water treatments listed in paragraph (ii) of this subdivision. A ~~supplier~~ **supply** may recommend that no treatment be installed based on a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(ii) **The department shall complete an evaluation of the results of all source water samples submitted by the supply to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps.** If the department determines that source water treatment is needed to minimize lead or copper levels in water that is delivered to users' taps, the department will either require installation and operation of the source water treatment recommended by the ~~supplier~~ **supply** or require the installation and operation of another source water treatment from among the following alternatives:

(A) Ion exchange.

(B) Reverse osmosis.

(C) Lime softening.

(D) Coagulation/filtration.

If the department requests additional information to aid in its review, the ~~supplier~~ **water supply** shall provide the information by the date specified by the department in its request. **The department shall notify the supply in writing of its determination and set forth the basis for its decision.**

(iii) ~~A supplier~~ **Each supply** shall properly install and operate the source water treatment designated by the department under paragraph (ii) of this subdivision. **The department shall review the source water samples taken by the supply both before and after the supply installs source water treatment and determine whether the supply has properly installed and operated the source water treatment designated by the department.**

(iv) **Based on the department's review of the source water treatment, the department shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. These levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The department shall notify the supply in writing and explain the basis for its decision.** ~~A supplier~~ **Each water supply** shall maintain lead and copper levels below the maximum permissible concentrations designated by the department at each sampling point monitored under R 325.10710c. A ~~system~~ **supply** is out of compliance with this subrule if the level of lead or copper at a sampling point is more than the maximum permissible concentration designated by the department.

(v) Upon its own initiative or in response to a request by a ~~supplier~~ **water supply** or other interested person, the department may modify its determination of the source water treatment or maximum permissible lead and copper concentrations for finished water entering the distribution system. A request for modification by a ~~supplier~~ **supply** or other interested person shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The department may modify its determination where it concludes that a change is necessary to ensure that the ~~supplier~~ **supply** continues to minimize lead and copper concentrations in source water. **A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the department's decision, and provide an implementation schedule for completing the treatment modifications.**

(5) Lead service line replacement requirements are as follows:

(a) A ~~supplier of a system~~ **water supply** that exceeds the lead action level in tap samples taken ~~pursuant to~~ **under** R 325.10710a(4)(b) after installing corrosion control or source water treatment, or both, whichever sampling occurs later, shall replace lead service lines under the requirements of this subrule. If a ~~supplier~~ **supply** is in violation of subrule (2) or (4) of this rule for failure to install source water or corrosion control treatment, then the department may require the ~~supplier~~ **supply** to commence lead service line replacement after the date that the ~~supplier~~ **supply** was required to conduct monitoring under R 325.10710a(4)(b).

(b) **Both of the following apply to the schedule of lead service line replacement:**

(i) Annually, a ~~supplier~~ **water supply** shall replace not less than 7% of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place when the replacement program begins. The ~~supplier~~ **supply** shall identify the initial number of lead service lines in its distribution system, including an identification of the portion or portions owned by the system, based on a materials evaluation, including the evaluation required under R 325.10710a(1) and relevant legal authorities, for example, contracts and local ordinances, regarding the portion owned by the system. The first year of lead service line replacement shall begin on the ~~date that~~ **first day following the end of the monitoring period in which** the action level was exceeded ~~in tap sampling referenced~~ in subdivision (a) of this subrule. **If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs. If the department has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.**

(ii) A water supply resuming a lead service line replacement program after the cessation of its lead service line replacement program as allowed by subdivision (e) of this subrule shall update its inventory of lead service lines to include those sites that were previously determined not to require replacement through the sampling provision under subdivision (c) of this subrule. The supply will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that shall be replaced per year. The 7% lead service line replacement is based on a 15-year replacement program, so, for example, supplies resuming lead service line replacement after previously conducting 2 years of replacement would divide the updated inventory by 13. For those supplies that have completed a 15-year lead service line replacement program, the department will determine a schedule for replacing or retesting lines that were previously tested out under the replacement program when the supply re-exceeds the action level.

(c) A ~~supplier~~ **water supply** is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken under R 325.10710a(2)(c), is less than or equal to 0.015 mg/l.

(d) A ~~supplier~~ **water supply** shall replace that portion of the lead service line that ~~the system~~ **it** owns. If the ~~system~~ **supply** does not own the entire lead service line, the ~~supplier~~ **supply** shall notify the owner of the line, or the owner's authorized agent, that the ~~supplier~~ **supply** will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A ~~supplier~~ **supply** is not required to bear the cost of replacing the privately owned portion of the line, nor is it required to replace the privately owned portion where the owner chooses not to pay the cost of replacing the privately owned portion of the line, or where replacing the privately owned portion would be precluded by state, local, or common law. A ~~supplier~~ **water supply** that does not replace the entire length of the service line also shall complete both of the following tasks:

(i) Not less than 45 days before commencing with the partial replacement of a lead service line, the ~~supplier~~ **water system** shall provide notice to the resident or residents of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The ~~supplier~~ **water supply** may provide notice under the previous sentence less than 45 days before commencing partial lead service line replacement where the replacement is in conjunction with emergency repairs. In addition, the ~~supplier~~ **water supply** shall inform the resident or residents served by the line that the ~~supplier~~ **supply** will, at the ~~supplier's~~ **supply's** expense, collect a sample from each partially replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under R 325.10710a(2)(c), within 72 hours after the completion of the partial replacement of the service line. The ~~supplier~~ **supply** shall collect the sample and report the results of the analysis to the owner and the resident or residents served by the line within 3 business days of receiving the results. Mailed notices postmarked within 3 business days of receiving the results are satisfactory.

(ii) The ~~supplier~~ **water supply** shall provide the information required by paragraph (i) of this subdivision to the residents of individual dwellings by mail or by other methods approved by the department. If multifamily dwellings are served by the line, the ~~supplier~~ **supply** shall have the option to post the information at a conspicuous location.

(e) **A water supply shall replace lead service lines on a shorter schedule than that required by this subrule, if directed by the department. The department shall take into account the number of lead service lines in the system, where a shorter replacement schedule is feasible. The department shall make this determination in writing and notify the supply of its finding within 6 months after the supply is triggered into lead service line replacement based on monitoring referenced in subdivision (a) of this subrule.**

(f) A ~~supplier~~ **supply** may cease replacing lead service lines when first draw samples collected under R 325.10710a(2)(b) meet the lead action level during each of 2 consecutive monitoring periods and the ~~supplier~~ **supply** submits the results to the department. If the first draw samples thereafter exceed the lead action level, the ~~supplier~~ **supply** shall recommence replacing lead service lines under subdivision (b)**(ii)** of this subrule.
~~(f)~~ **(g)** To demonstrate compliance with subdivisions (a) to (d) of this subrule, a ~~supplier~~ **supply** shall report the information specified in R 325.10710d(e) to the department.

R 325.10605 Analytical techniques and sample collection procedures; incorporation by reference.
Rule 605. The analytical techniques and sample collection procedures used in the determination of compliance with the state drinking water standards for microbiological contaminants, **fecal indicators,** inorganic chemical contaminants, organic chemical contaminants, including maximum TTHM potential, turbidity, residual disinfectants, disinfection byproducts, disinfection byproduct precursors, temperature, pH, conductivity, alkalinity, **bromide, specific ultraviolet absorbance, total organic carbon,** and radioactivity which are contained in 40 CFR parts 141 and 143, (~~2004, 2003, 2002, 2001~~ **2008**), and which have been promulgated by the United States EPA under authority of the safe drinking water act of 1974 (public law 93-523), the safe drinking water act amendments of 1986 (public law 99-339), and the safe drinking water act amendments of 1996 (public law 104-182), 42 USC 300f et seq. are adopted by reference in these rules. The adopted material is **contained in Title 40 CFR Parts 136 to 149 and is** available from the superintendent of documents at the address in R 325.10116(b) for a cost of ~~$61.00~~ **$64.00** at the time of adoption of these rules. The adopted material is available for inspection, or ~~copies are~~ **a copy is** available at no cost from the offices of the department at the address in R 325.10116(a).

R 325.10610 MCLs for disinfection byproducts.
Rule 610. (1) **Both of the following apply to bromate and chlorite:**
(a) The maximum contaminant levels (MCLs) for ~~disinfection byproducts~~ **bromate and chlorite** are as follows:

Disinfection byproduct	MCL (mg/l)
~~Total trihalomethanes (TTHM)~~	~~0.080~~
~~Haloacetic acids (five) (HAA5)~~	~~0.060~~
Bromate	0.010
Chlorite	1.0

(b) The best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are as follows:

Disinfection byproduct	**Best available technology.**
Bromate	**Control of ozone treatment process to reduce production of bromate.**
Chlorite	**Control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.**

(2) ~~This rule, R 325.10610a, R 325.10610b, R 325.10610c, R 325.10719e, and R 325.10719f apply to community and nontransient noncommunity water systems that add a chemical disinfectant to the water in any part of the drinking water treatment process and to transient noncommunity water systems adding~~

~~chlorine dioxide. Transient noncommunity water systems are only required to comply with the chlorine dioxide requirements.~~ **All of the following apply to total trihalomethanes and haloacetic acids:**

(a) The MCLs for TTHM and HAA5 are as follows:

Disinfection byproduct	**MCL (mg/L)**
Total trihalomethanes (TTHM) *	**0.080**
Haloacetic acids (five) (HAA5) *	**0.060**

*** Water supplies shall comply with the TTHM and HAA5 MCLs as a running annual average until the date specified in R 325.10610d(3). Supplies shall comply with the TTHM and HAA5 MCLs as a locational running annual average at each monitoring location beginning the date specified for compliance in R 325.10610d(3).**

(b) The best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs under subdivision (a) of this subrule based on a running annual average under R 325.10610b and for achieving compliance with the MCLs based on a locational running annual average under R 325.10610d are as follows:

Disinfection byproduct	**Best available technology for compliance with running annual average**	**Best available technology for compliance with locational running annual average**
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	**Enhanced coagulation or enhanced softening or GAC10, with chlorine as the primary and residual disinfectant**	**Enhanced coagulation or enhanced softening, plus GAC10; or nanofiltration with a molecular weight cutoff less than or equal to1000 Daltons; or GAC20**

(c) The best technology, treatment techniques, or other means available for achieving compliance with the MCLs under subdivision (a) of this subrule as a locational running annual average under R 325.10610d for consecutive supplies are as follows and applies only to the disinfected water that consecutive supplies buy or otherwise receive.

Disinfection byproduct	**Best available technology**
Total trihalomethanes (TTHM) and Haloacetic acids (five) (HAA5).	**Supplies serving 10,000 or more people: Improved distribution system and storage tank management to reduce residence time, plus the use of chloramines for disinfectant residual maintenance.** **Supplies serving fewer than 10,000 people: Improved distribution system and storage tank management to reduce residence time**

R 325.10610a Maximum residual disinfectant levels.
Rule 610a. (1) Maximum residual disinfectant levels (MRDLS) are as follows:

Disinfectant residual	MRDL (mg/l)

Chlorine	4.0 as chlorine
Chloramines	4.0 as chlorine
Chlorine dioxide	0.8 as chlorine dioxide

(2)~~ This rule applies as specified in R 325.10610(2)~~ **The best available technologies, treatment techniques, or other means available for achieving compliance with the maximum residual disinfectant levels under subrule (1) of this rule are control of treatment processes to reduce disinfectant demand and control of disinfection treatment processes to reduce disinfectant levels.**
~~(3) Suppliers may increase residual disinfectant levels in the distribution system of chlorine or chloramines, but shall not increase the levels of chlorine dioxide, to a level and for a time necessary to protect public health to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run off events, source water contamination events, or cross connection events.~~

R 325.10610b Disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors; compliance requirements.
Rule 610b. (1) ~~This rule applies as specified in R 325.10610(2).~~ **This rule, R 325.10610c, R 325.10719e, and R 325.10719f apply to community water supplies and nontransient noncommunity water supplies that add a chemical disinfectant to the water in any part of the drinking water treatment process and to transient noncommunity water supplies adding chlorine dioxide. These public water supplies are considered "water supplies" or "supplies" in this rule. Transient noncommunity water supplies are only required to comply with the chlorine dioxide requirements.** Compliance with this rule is based on all of the following:
(a) All samples taken ~~and analyzed under R 325.10605, R 325.10610, R 325.610a,~~ **under** this rule, R 325.10610c, R 325.10719e, and R 325.10719f **and analyzed under R 325.10605,** shall be included in determining compliance.
(b) If, during the first year of monitoring under R 325.10719e, any individual quarter's average will cause the running annual average of that ~~system~~ **water supply** to exceed the MCL **for total trihalomethanes, haloacetic acids (five), or bromate; or the MRDL for chlorine or chloramine**, the ~~system~~ **supply** is out of compliance at the end of that quarter.
(c) A ~~system~~ **supply** is in violation of the state drinking water standard if compliance is based on 4 consecutive quarters of monitoring and the average of samples, or quarterly averages, or running annual averages, whichever is applicable, exceeds the state drinking water standard, unless otherwise noted in this rule.
(d) Where compliance is based on a running annual average of monthly or quarterly samples or averages and the ~~supplier~~ **supply** fails to complete 4 consecutive quarters or 12 consecutive months of monitoring, whichever is applicable, compliance with the MCL for the last 4 quarter compliance period is based on an average of the available data unless otherwise stated in this rule.
(2) Compliance with disinfection byproducts requirements is based on all of the following:
(a) Compliance with TTHM and HAA5 requirements are based on both of the following:
(i) For suppli~~er~~s monitoring quarterly, compliance with MCLs in R 325.10610 is based on a running annual average, computed quarterly, of quarterly averages of all samples collected under R 325.10719e(2)(a).
(ii) For suppli~~er~~s monitoring less frequently than quarterly, compliance is based on an average of samples taken that year under R 325.10719e(2)(a) if the average does not exceed the MCLs in R 325.10610. If the average of these samples exceeds the MCL, suppli~~er~~s shall increase monitoring to once per quarter per treatment plant and the ~~system~~ **supply** is not in violation of the MCL until it has

completed 1 year of quarterly monitoring, unless the result of fewer than 4 quarters of monitoring will cause the running annual average to exceed the MCL, in which case the ~~system~~ **supply** is in violation at the end of that quarter. ~~Suppliers~~ **Supplies** required to increase monitoring frequency to quarterly monitoring shall calculate compliance by including the sample which triggered the increased monitoring plus the following 3 quarters of monitoring.

(b) Compliance with the bromate requirements is based on a running annual average, computed quarterly, of monthly samples, or, for months in which the ~~system~~ **supply** takes more than 1 sample, the average of all samples taken during the month, collected under R 325.10719e(2)(c).

(c) Compliance with the chlorite requirements is based on an average of each 3 sample set taken in the distribution system under R 325.10719e(2)(b)(i)(B) and R 325.10719e(2)(b)(ii). If the average of any 3 sample set exceeds the MCL, the ~~system~~ **supply** is in violation of the MCL.

(3) Compliance with disinfectant residuals requirements is based on both of the following:

(a) Compliance with the chlorine and chloramines requirements is based on a running annual average, computed quarterly, of monthly averages of all samples collected by the ~~system~~ **supply** under R 325.10719e(3)(a). In cases where ~~systems~~ **supplies** switch between the use of chlorine and chloramines for residual disinfection during the year, compliance is determined by including together all monitoring results of both chlorine and chloramines in calculating compliance. ~~Suppliers~~ **Supplies** shall clearly indicate which residual disinfectant was analyzed for each sample when submitting reports to the department under R 325.11502a.

(b) Compliance with the chlorine dioxide requirements is based on consecutive daily samples collected by the ~~system~~ **supply** under R 325.10719e(3)(b).

(i) A tier 1 violation occurs when a daily sample taken at the entrance to the distribution system exceeds the MRDL, and on the following day 1, or more, of the 3 samples taken in the distribution system exceed the MRDL. The ~~supplier~~ **supply** shall take immediate corrective action to lower the level of chlorine dioxide below the MRDL. Failure to monitor in the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system is also a tier 1 MRDL violation.

(ii) A tier 2 violation occurs when 2 consecutive daily samples taken at the entrance to the distribution system exceed the MRDL and all distribution system samples taken are below the MRDL. The ~~supplier~~ **supply** shall take corrective action to lower the level of chlorine dioxide below the MRDL at the point of sampling. Failure to monitor at the entrance to the distribution system the day following an exceedance of the chlorine dioxide MRDL at the entrance to the distribution system is also a tier 2 MRDL violation.

(c) Notwithstanding the MRDLs in R 325.10610b, supplies may increase residual disinfectant levels in the distribution system of chlorine or chloramines, but shall not increase the levels of chlorine dioxide, to a level and for a time necessary to protect public health to address specific microbiological contamination problems caused by circumstances such as distribution line breaks, storm run-off events, source water contamination events, or cross-connection events.

(4) Compliance with the treatment technique for disinfection byproduct precursors (DBPP) is determined as specified by R 325.10610c(3). ~~Suppliers~~ **Supplies** may begin monitoring to determine whether step 1 TOC removals can be met 12 months before the compliance date for the ~~system~~ **supply**. This monitoring is not required and failure to monitor during this period is not a violation. However, a ~~supplier~~ **supply** that does not monitor during this period, and then determines, in the first 12 months after the compliance date, that the ~~system~~ **supply** is not able to meet the step 1 requirements in R 325.10610c(2)(b) and shall therefore apply for alternate minimum TOC removal (step 2) requirements, is not eligible for retroactive approval of alternate minimum TOC removal (step 2) requirements as allowed under R 325.10610c(2)(c) and is in violation. ~~Suppliers~~ **Supplies** may apply for alternate

minimum TOC removal (step 2) requirements any time after the compliance date. For ~~systems~~ **supplies** required to meet step 1 TOC removals, if the value calculated under R 325.10610c(3)(a)(iv) is less than 1.00 calculated as a running annual average of monthly samples, computed quarterly, the ~~system~~ **supply** is in violation of the treatment technique requirements.

R 325.10610c ~~Treatment technique for control~~ **Control** of disinfection byproduct (DBP) precursors**; treatment technique**.
Rule 610c. (1) This rule applies ~~as specified in R 325.10610(2)~~ **to Subpart H supplies subject to R 325.10610b(1) that use conventional filtration. These public water supplies are considered "water supplies" or "supplies" in this rule**. Compliance with this rule is based on all of the following:
(a) S~~uppliers of s~~ubpart H systems using conventional filtration shall operate with enhanced coagulation or enhanced softening to achieve the TOC percent removal levels specified in subrule (2) of this rule unless the ~~system~~ **supply** meets at least 1 of the alternative compliance criteria listed in subdivision (b) or (c) of this subrule.
(b) S~~uppliers of s~~ubpart H systems using conventional filtration may use the following alternative compliance criteria to comply with this rule instead of complying with subrule (2) of this rule. ~~Suppliers of systems~~ **Supplies** using alternative compliance criteria shall still comply with TOC monitoring requirements in R 325.10719e(4):
(i) The ~~system's~~ **supply's** source water TOC level is less than 2.0 mg/l, calculated quarterly as a running annual average.
(ii) The ~~system's~~ **supply's** treated water TOC level is less than 2.0 mg/l, calculated quarterly as a running annual average.
(iii) The ~~system's~~ **supply's** source water TOC level is less than 4.0 mg/l, calculated quarterly as a running annual average; the source water alkalinity, measured under R 325.10605, is more than 60 mg/l as calcium carbonate, calculated quarterly as a running annual average; and either the TTHM and HAA5 running annual averages are not more than 0.040 mg/l and 0.030 mg/l, respectively, or before the effective date for compliance in R 325.10610(2), the ~~supplier~~ **supply** has made a clear and irrevocable financial commitment to use technologies that will limit the levels of TTHM and HAA5 to not more than 0.040 mg/l and 0.030 mg/l, respectively. ~~Suppliers~~ **Supplies** shall submit evidence of a clear and irrevocable financial commitment, in addition to a schedule containing milestones and periodic progress reports for installation and operation of appropriate technologies, to the department for approval not later than the effective date for compliance in R 325.10610(2). These technologies shall be installed and operating not later than June 30, 2005. Failure to install and operate these technologies by the date in the approved schedule is a violation of these rules.
(iv) The TTHM and HAA5 running annual averages are not more than 0.040 mg/l and 0.030 mg/l, respectively, and the ~~supplier~~ **supply** uses only chlorine for primary disinfection and maintenance of a residual in the distribution system.
(v) The ~~system's~~ **supply's** source water SUVA, before any treatment and measured monthly, is less than or equal to 2.0 liters per milligram meter (l/mg-m), calculated quarterly as a running annual average.
(vi) The ~~system's~~ **supply's** finished water SUVA, measured monthly, is less than or equal to 2.0 l/mg-m, calculated quarterly as a running annual average.
(c) ~~Suppliers of systems~~ **Water supplies** practicing enhanced softening that cannot achieve the TOC removals required by subrule (2)(b) of this rule may use the following alternative compliance criteria instead of complying with subrule (2) of this rule; however, suppli~~rs~~ ~~of systems~~ using alternative compliance criteria shall still comply with TOC monitoring requirements in R 325.10719e(4)(b):
(i) Softening that results in lowering the treated water alkalinity to less than 60 mg/l as calcium carbonate, measured monthly and calculated quarterly as a running annual average.

(ii) Softening that results in removing not less than 10 mg/l of magnesium hardness as calcium carbonate, measured monthly and calculated quarterly as an annual running average.
(2) All of the following provisions are enhanced coagulation and enhanced softening performance requirements:
(a) ~~Suppliers~~ **Water supplies** shall achieve the percent reduction of TOC specified in subdivision (b) of this subrule between the source water and the combined filter effluent, unless the department approves a ~~supplier's~~ **supply's** request for alternate minimum TOC removal (step 2) requirements under subdivision (c) of this subrule.
(b) Required step 1 TOC reductions, indicated in table 1 of this rule, are based on specified source water parameters. ~~Suppliers~~ **Supplies** practicing softening are required to meet the step 1 TOC reductions in the far-right column "source water alkalinity >120 mg/l" for the specified source water TOC.

Table 1 Step 1 required removal of TOC by enhanced coagulation and enhanced softening for subpart H ~~systems~~ **supplies** using conventional filtration [A, B]

Source-water TOC, mg/l	Source-water alkalinity, mg/l as calcium carbonate		
	0-60	>60-120	>120C
>2.0-4.0	35.0%	25.0%	15.0%
>4.0-8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

[A] ~~Suppliers~~ **Supplies** meeting at least 1 of the conditions in subrule (1)(b)(i) ~~through~~ **to** (vi) of this rule are not required to operate with enhanced coagulation.
[B] ~~Suppliers of~~ **Supplies with** softening systems meeting 1 of the alternative compliance criteria in subrule (1)(c) of this rule are not required to operate with enhanced softening.
[C] ~~Suppliers~~ **Supplies** practicing softening shall meet the TOC removal requirements in this column.

(c) S~~uppliers of~~ subpart H **supplies using** conventional filtration systems that cannot achieve the step 1 TOC removals required by subdivision (b) of this subrule due to water quality parameters or operational constraints shall apply to the department, within 3 months of failure to achieve the TOC removals required by subdivision (b) of this subrule, for approval of alternative minimum TOC removal (step 2) requirements submitted by the ~~system~~ **supply**. If the department approves the step 2 requirements, then a ~~system's~~ **supply's** failure to meet the step 1 TOC removals will not be considered a treatment technique violation during the interim time period between the end of the 12-month data gathering monitoring period in R 325.10610b(4) and receipt of the department's approval. Until the department approves the step 2 requirements, the ~~system~~ **supply** shall meet the step 1 TOC removals contained in subdivision (b) of this subrule.
(d) Applications made to the department by ~~suppliers of~~ **water supplies with** enhanced coagulation systems for approval of alternative minimum TOC removal (step 2) requirements under subdivision (c) of this subrule shall include, at a minimum, results of bench- or pilot-scale testing conducted under paragraph (i) of this subdivision to determine the alternate enhanced coagulation level**. All of the following apply**:
(i) Alternate enhanced coagulation level is defined as coagulation at a coagulant dose and pH as determined by the method described in paragraphs (i) to (v) of this subdivision such that an incremental addition of 10 mg/l of alum, or equivalent amount of ferric salt, results in a TOC removal of less than or

equal to 0.3 mg/l. The percent removal of TOC at this point is the minimum TOC removal required for the ~~system~~ **supply**. Once approved by the department, this minimum requirement supersedes the minimum TOC removal required by table 1 of this rule. This requirement will be effective until the department approves a new value based on the results of a new bench- and pilot-scale test. Failure to achieve department-set alternative minimum TOC removal levels is a violation of these rules.
(ii) Bench- or pilot-scale testing of enhanced coagulation shall be conducted by using representative water samples and adding 10 mg/l increments of alum, or equivalent amounts of ferric salt, until the pH is reduced to a level less than or equal to the enhanced coagulation step 2 target pH shown in the following table:

Table 2 Enhanced coagulation step 2 target pH

Alkalinity (mg/l as calcium carbonate)	Target pH
0-60	5.5
>60-120	6.3
>120-240	7.0
>240	7.5

(iii) For waters with alkalinities of less than 60 mg/l for which addition of small amounts of alum or equivalent addition of iron coagulant drives the pH below 5.5 before significant TOC removal occurs, the ~~supplier~~ **supply** shall add necessary chemicals to maintain the pH between 5.3 and 5.7 in samples until the TOC removal of 0.3 mg/l per 10 mg/l alum added, or equivalent addition of iron coagulant, is reached.
(iv) The ~~system~~ **supply** may operate at any coagulant dose or pH necessary, and consistent with these rules, to achieve the minimum TOC percent removal approved under subdivision (c) of this subrule.
(v) If the TOC removal is consistently less than 0.3 mg/l of TOC per 10 mg/l of incremental alum dose at all dosages of alum, or equivalent addition of iron coagulant, the water is considered to contain TOC not amenable to enhanced coagulation. The ~~supplier~~ **supply** may then apply to the department for a waiver of enhanced coagulation requirements. The department's determination will be made on a case-by-case basis and the department will consider supporting documentation from the water ~~supplier~~ **supply** of bench or pilot scale testing designed to demonstrate the best level of TOC removal that is feasibly attainable, given the unique characteristics of the raw water to be treated.
(3) ~~Suppliers~~ **Water supplies** shall calculate compliance using the methods in either of the following provisions, as applicable:
(a) S~~uppliers of s~~ubpart H ~~systems~~ **supplies**, other than those identified in subrule (1)(b) or (c) of this rule, shall comply with requirements contained in subule (2)(b) or (c) of this rule. ~~Suppliers~~ **Supplies** shall calculate compliance quarterly, beginning after the ~~supplier~~ **supply** has collected 12 months of data, by determining an annual average using the following method:
(i) Determine actual monthly TOC percent removal, equal to:
(1 - (treated water TOC/source water TOC)) x 100.
(ii) Determine the required monthly TOC percent removal, from either table 1 of this rule or from subrule (2)(c) of this rule.
(iii) Divide the value in paragraph (i) of this subdivision by the value in paragraph (ii) of this subdivision.

(iv) Add together the results of paragraph (iii) of this subdivision for the last 12 months and divide by 12.
(v) If the value calculated in paragraph (iv) of this subdivision is less than 1.00, then the ~~system~~ **supply** is not in compliance with the TOC percent removal requirements.
(b) ~~Suppliers~~ **Supplies** may use the provisions in paragraphs (i) ~~through~~ **to** (v) of this subdivision instead of the calculations in subdivision (a)(i) ~~through~~ **to** (v) of this subrule to determine compliance with TOC percent removal requirements, as follows:
(i) In any month that the ~~system's~~ **supply's** treated or source water TOC level is less than 2.0 mg/l, the ~~supplier~~ **supply** may assign a monthly value of 1.0, instead of the value calculated in subdivision (a)(iii) of this subrule, when calculating compliance under subdivision (a) of this subrule.
(ii) In any month that a ~~system~~ **supply** practicing softening removes not less than 10 mg/l of magnesium hardness as calcium carbonate, the ~~supplier~~ **supply** may assign a monthly value of 1.0, instead of the value calculated in subdivision (a)(iii) of this subrule, when calculating compliance under subdivision (a) of this subrule.
(iii) In any month that the ~~system's~~ **supply's** source water SUVA, before any treatment, is less than or equal to 2.0 l/mg-m, the ~~supplier~~ **supply** may assign a monthly value of 1.0, instead of the value calculated in subdivision (a)(iii) of this subrule, when calculating compliance under subdivision (a) of this subrule.
(iv) In any month that the ~~system's~~ **supply's** finished water SUVA is less than or equal to 2.0 l/mg-m, the ~~supplier~~ **supply** may assign a monthly value of 1.0, instead of the value calculated in subdivision (a)(iii) of this subrule, when calculating compliance under subdivision (a) of this subrule.
(v) In any month that a ~~system~~ **supply** practicing enhanced softening lowers alkalinity below 60 mg/l as calcium carbonate, the ~~supplier~~ **supply** may assign a monthly value of 1.0, instead of the value calculated in subdivision (a)(iii) of this subrule, when calculating compliance under subdivision (a) of this subrule.
(4) The treatment techniques to control the level of disinfection byproduct precursors in drinking water treatment and distribution systems for subpart H ~~systems~~ **supplies** using conventional filtration is enhanced coagulation or enhanced softening.

R 325.10610d Disinfection byproducts; requirements.
Rule 610d. (1) This rule and R 325.10719h to R 325.10719n establish monitoring and other requirements for achieving compliance with maximum contaminant levels based on locational running annual averages (LRAA) for total trihalomethanes (TTHM) and haloacetic acids (five)(HAA5), and for achieving compliance with maximum residual disinfectant residuals for chlorine and chloramine for certain consecutive supplies.
(2) Subject to these requirements are community and nontransient noncommunity water supplies that use a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light. These public water supplies are considered "water supplies" or "supplies" in this rule and R 325.10719h to R 325.10719n.
(3) The supply shall comply with all of the following provisions:
(a) The supply shall comply with the requirements in this rule and R 325.10719h to R325.10719n on the schedule in the following table based on the supply type:

For supplies that are not part of a combined distribution system and supplies that serve the largest population in a combined distribution system of …	The supply shall comply with monitoring required under R 325.10610d and R 325.10719h to R 325.10719n by…*
(i) 100,000 or more	April 1, 2012.
(ii) 50,000-99,999	October 1, 2012.
(iii) 10,000-49,999	October 1, 2013.
(iv) less than 10,000	October 1, 2013 if no Cryptosporidium monitoring is required under 40 CFR 141.701(a)(4) or October 1, 2014 if Cryptosporidium monitoring is required under 40 CFR 141.701(a)(4) or (a)(6). 40 CFR 141.701 is adopted by reference in R 325.10720b.
(v) For other supplies that are part of a combined distribution system, specifically consecutive supplies or wholesale supplies…	--at the same time as the supply with the earliest compliance date in the combined distribution system.

*** The department may grant up to an additional 24 months for compliance with MCLs and operational evaluation levels if the supply requires capital improvements to comply with an MCL.**

(b) The monitoring frequency is specified in R 325.10719h(1)(a) and both of the following:
(i) If the supply is required to conduct quarterly monitoring, the supply shall begin monitoring in the first full calendar quarter that includes the compliance date in the table in this subrule.
(ii) If the supply is required to conduct monitoring at a frequency that is less than quarterly, the supply shall begin monitoring in the calendar month recommended in the IDSE report prepared under 40 CFR 141.601 or 40 CFR 141.602, adopted by reference in R 325.10719g, or the calendar month identified in the monitoring plan developed under R 325.10719i not later than 12 months after the compliance date in this table.
(c) If the supply is required to conduct quarterly monitoring, the supply shall make compliance calculations at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter (or earlier if the LRAA calculated based on fewer than 4 quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters). If the supply is required to conduct monitoring at a frequency that is less than quarterly, the supply shall make compliance calculations beginning with the first compliance sample taken after the compliance date.
(d) For the purpose of the schedule in this subrule, the department may determine that the combined distribution system does not include certain consecutive supplies based on factors such as receiving water from a wholesale supply only on an emergency basis or receiving only a small percentage and small volume of water from a wholesale supply. The department may also determine that the combined distribution system does not include certain wholesale supplies based on factors such as delivering water to a consecutive supply only on an emergency basis or delivering only a small percentage and small volume of water to a consecutive supply.
(4) Compliance with the MCLs shall be based on both of the following:
(a) This subdivision applies to supplies required to monitor quarterly. To comply with MCLs in R 325.10610(2), the supply shall calculate LRAAs for TTHM and HAA5 using monitoring results collected under this rule and R 325.10719h to R 325.10719n and determine that each LRAA does

not exceed the MCL. If the supply fails to complete 4 consecutive quarters of monitoring, the supply shall calculate compliance with the MCL based on the average of the available data from the most recent 4 quarters. If the supply takes more than 1 sample per quarter at a monitoring location, the supply shall average all samples taken in the quarter at that location to determine a quarterly average to be used in the LRAA calculation.
(b) This subdivision applies to supplies required to monitor annually or less frequently. To determine compliance with MCLs in R 325.10610(2), the supply shall determine that each sample taken is less than the MCL. If a sample exceeds the MCL, the supply shall comply with the requirements of R 325.10719k. If no sample exceeds the MCL, the sample result for each monitoring location is considered the LRAA for that monitoring location.
(5) The supply is in violation of the MCL when the LRAA exceeds the MCLs in R 325.10610(2), calculated based on 4 consecutive quarters of monitoring, or the LRAA calculated based on fewer than 4 quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters. The supply is in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if the supply fails to monitor.
(6) A consecutive supply that does not add a disinfectant but delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light, shall comply with monitoring requirements for chlorine and chloramines in R 325.10719e(3)(a) and the compliance requirements in R 325.10610b(1)(c) and (3)(a) and shall report monitoring results under R 325.10719f(3)(a).

R 325.10611a Filtration and disinfection; disinfection.
Rule 611a. (1) Subpart H ~~systems~~ **supplies** shall provide sufficient disinfectant contact time before the water enters the distribution system to assure adequate disinfection.
(2) Subpart H ~~systems~~ **supplies** shall provide disinfection treatment achieving all of the following conditions:
(a) The disinfection treatment shall be sufficient to ensure that the total treatment processes of that system achieve the standards set forth in R 325.**10**611(3)(a).
(b) The residual disinfectant concentration in the water entering the distribution system shall not be less than 0.2 milligrams per liter for more than 4 hours.
(c) The residual disinfectant concentration in the distribution system, measured as total chlorine, free available chlorine, combined chlorine, or chlorine dioxide shall not be undetectable in more than 5% of the samples each month for any 2 consecutive months that the ~~system~~ **supply** serves water to the public. Water in the distribution system that has a heterotrophic bacteria concentration less than or equal to 500 per milliliter, measured as heterotrophic plate count (HPC), is considered to have a detectable disinfectant residual for purposes of determining compliance with this subdivision.
(d) If the department determines, based on site specific considerations, that a ~~system~~ **supply** does not have means for having a sample transported and analyzed for HPC and that the ~~system~~ **supply** is providing adequate disinfection in the distribution system, then the requirements of subdivision (c) of this subrule do not apply.

R 325.10611b Filtration and disinfection; filtration.
Rule 611b. (1) S~~uppliers of~~ subpart H ~~systems~~ **supplies** shall comply with all of the following filtration requirements, as applicable:

*For a ~~system~~ **supply** using...*	*(i) The turbidity level of representative samples of a ~~system's~~ **supply's** filtered water shall at no time exceed...*	*(ii) Not less than 95% of the measurements taken each month shall be less than or equal to...*
(a) Conventional, direct, or membrane filtration	1 ntu ~~/ 5 ntu~~[1]	0.3 ntu ~~/ 0.5 ntu~~[2]
(b) Slow sand or diatomaceous earth filtration	5 ntu	1 ntu

(c) An alternative filtration technology approved by the department, based on the demonstration described in subrule (3) of this rule.	The department-set turbidity level, not to exceed 5 ntu, based on the demonstration described in subrule (3) of this rule.	The department-set turbidity level, not to exceed 1 ntu, based on the demonstration described in subrule (3) of this rule.

~~[1] The 1 ntu level applies to systems serving 10,000 or more people and the 5 ntu level applies to systems serving fewer than 10,000 people until December 31, 2004. Beginning January 1, 2005, the 5 ntu level and this footnote no longer apply and all systems subject to this rule shall comply with the 1 ntu level.~~
~~[2] The 0.3 ntu level applies to systems serving 10,000 or more people and the 0.5 ntu level applies to systems serving fewer than 10,000 people until December 31, 2004. Beginning January 1, 2005, the 0.5 ntu level and this footnote no longer apply and all systems subject to this rule shall comply with the 0.3 ntu level.~~

(2) A ~~system~~ **supply** using lime softening, where the final pH exceeds 8.3, may acidify representative samples before turbidity analysis using a protocol approved by the department. The approved protocol shall require the use of a concentrated acid in sufficient quantities to lower the pH to less than 8.3, dissolve only calcium carbonate and magnesium hydroxide, and not to dilute the representative sample.

(3) A public water ~~system~~ **supply** may use a filtration technology not listed in subrule (1)(a) or (b) of this rule if the ~~supplier~~ **supply** demonstrates to the department, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment that meets the requirements of R 325.10611a(2), consistently achieves the removal or inactivation percentages in R 325.10611(3), and the department approves the use of the filtration technology. For each approval, the department will set turbidity performance requirements that the ~~system~~ **supply** shall meet not less than 95% of the time and the ~~system~~ **supply** shall not exceed, at any time, at a level in subrule (1)(c) of this rule that consistently achieves the removal or inactivation percentages in R 325.10611(3).

R 325.10611d Enhanced treatment for Cryptosporidium; requirements.
Rule 611d. (1) The requirements in this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e establish or extend treatment technique requirements instead of maximum contaminant levels for Cryptosporidium. These requirements are in addition to requirements for filtration and disinfection in R 325.10611 to R 325.10611c, R 325.10720 to R 325.10720a, and R 325.10722.
(2) The requirements of this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e apply to all subpart H supplies, which are community and noncommunity water supplies supplied by a surface water source and community and noncommunity water supplies supplied by a groundwater source under the direct influence of surface water (GWUDI). These public water supplies are considered "water supplies" or "supplies" in this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e. Both of the following apply to this rule:
(a) Wholesale supplies, as defined in R 325.10109, shall comply with the requirements of this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e based on the population of the largest supply in the combined distribution system.
(b) The requirements of this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e apply to subpart H supplies required by these rules to provide filtration treatment, whether or not the supply is currently operating a filtration system.
(3) Supplies subject to this rule, R 325.10611e to R 325.10611n, and R 325.10720b to R 325.10720e shall comply with the following requirements:
(a) Supplies shall conduct an initial and a second round of source water monitoring for each plant that treats a surface water or GWUDI source. This monitoring may include sampling for Cryptosporidium, E. coli, and turbidity as described in 40 CFR 141.701 to 40 CFR 141.706, as adopted by reference in R 325.10720b, to determine what level, if any, of additional Cryptosporidium treatment they shall provide.
(b) Supplies that plan to make a significant change to their disinfection practice shall develop disinfection profiles and calculate disinfection benchmarks, as described in R 325.10720c to R 325.10720d.
(c) Supplies shall determine their Cryptosporidium treatment bin classification as described in R 325.10611e and provide additional treatment for Cryptosporidium, if required, as described in R 325.10611f. Supplies shall implement Cryptosporidium treatment according to the schedule in R 325.10611g.
(d) Supplies required to provide additional treatment for Cryptosporidium shall implement microbial toolbox options that are designed and operated as described in R 325.10611h to R 325.10611m.
(e) Supplies shall comply with the applicable recordkeeping and reporting requirements described in R 325.10720e.

(f) Supplies shall address significant deficiencies identified in sanitary surveys performed by EPA as described in R 325.10611n.

R 325.10611e Enhanced treatment for Cryptosporidium; treatment technique; bin classification.
Rule 611e. (1) Following completion of the initial round of source water monitoring required under 40 CFR 141.701(a), as adopted by reference in R 325.10720b, subpart H supplies that are subject to R 325.10611d shall calculate an initial Cryptosporidium bin concentration for each plant for which monitoring was required. These public water supplies are also considered "water supplies" or "supplies" in this rule. Calculation of the bin concentration shall use the Cryptosporidium results reported under 40 CFR 141.701(a) and shall follow the procedures in subrule (2) of this rule.
(2) Supplies shall use the following criteria to determine bin classification:
(a) For supplies that collect a total of not less than 48 samples, the bin concentration is equal to the arithmetic mean of all sample concentrations.
(b) For supplies that collect a total of not less than 24 samples, but not more than 47 samples, the bin concentration is equal to the highest arithmetic mean of all sample concentrations in any 12 consecutive months during which Cryptosporidium samples were collected.
(c) For supplies that serve fewer than 10,000 people and monitor for Cryptosporidium for only 1 year, that is, collect 24 samples in 12 months, the bin concentration is equal to the arithmetic mean of all sample concentrations.
(d) For supplies with plants operating only part of the year that monitor fewer than 12 months per year under 40 CFR 141.701(e), as adopted by reference in R 325.10720b, the bin concentration is equal to the highest arithmetic mean of all sample concentrations during a year of Cryptosporidium monitoring.
(e) If the monthly Cryptosporidium sampling frequency varies, supplies shall first calculate a monthly average for each month of monitoring. Supplies shall then use these monthly average concentrations, rather than individual sample concentrations, in the applicable calculation for bin classification in subdivisions (a) to (d) of this subrule.
(3) Supplies shall determine their initial bin classification from the following table and using the Cryptosporidium bin concentration calculated under subrules (1) and (2) of this rule:

Bin Classification Table for Filtered Supplies

For supplies that are:	With a Cryptosporidium bin concentration of … *	The bin classification is …
… required to monitor for Cryptosporidium under 40 CFR 141.701 as adopted by reference in R 325.10720b.	Cryptosporidium less than 0.075 oocyst/L	Bin 1.
	Cryptosporidium greater than or equal to 0.075 and less than 1.0 oocysts/L	Bin 2
	Cryptosporidium greater than or equal to 1.0 and less than 3.0 oocysts/L	Bin 3

	Cryptosporidium greater than or equal to 3.0 oocysts/L.	**Bin 4**
… serving fewer than 10,000 people and NOT required to monitor for Cryptosporidium under 40 CFR 141.701(a)(4).	**Not applicable**	**Bin 1**

*** Based on calculations in subrule (1) or (4) of this rule, as applicable.**

(4) Following completion of the second round of source water monitoring required under 40 CFR 141.701(b), supplies shall recalculate their Cryptosporidium bin concentration using the Cryptosporidium results reported under 40 CFR 141.701(b) and following the procedures in subrule (2)(a) to (d) of this rule. Supplies shall then redetermine their bin classification using this bin concentration and the table in subrule (3) of this rule.
(5) The following apply to reporting the bin classification to the department:
(a) Supplies shall report their initial bin classification under subrule (3) of this rule to the department for approval not later than 6 months after the supply is required to complete initial source water monitoring based on the schedule in 40 CFR 141.701(c).
(b) Supplies shall report their bin classification under subrule (4) of this rule to the department for approval not later than 6 months after the supply is required to complete the second round of source water monitoring based on the schedule in 40 CFR 141.701(c).
(c) The bin classification report to the department shall include a summary of source water monitoring data and the calculation procedure used to determine bin classification.
(6) Failure to comply with the conditions of subrule (5) of this rule is a violation of the treatment technique requirement.

R 325.10611f Enhanced treatment for Cryptosporidium; treatment technique; additional Cryptosporidium treatment requirements.
Rule 611f. (1) Subpart H supplies are also considered "water supplies" or "supplies" in this rule. Subpart H supplies that are subject to R 325.10611d shall provide the level of additional treatment for Cryptosporidium specified in the following table based on their bin classification as determined under R 325.10611e and according to the schedule in R 325.10611g:

If the supply bin classification is …	**And the supply uses the following filtration treatment in full compliance with R 325.10611 to R 325.10611c, R 325.10720 to R 325.10720a, and R 325.10722, as applicable, then the additional Cryptosporidium treatment requirements are …**			
	Conventional filtration or membrane filtration treatment (including softening)	**Direct filtration**	**Slow sand or diatomaceous earth filtration**	**Alternative filtration technologies approved by the department under R 325.10611b(3)**

Bin 1	**No additional treatment**	**No additional treatment**	**No additional treatment**	**No additional treatment**
Bin 2	**1-log treatment**	**1.5-log treatment**	**1-log treatment**	**Note 1**
Bin 3	**2-log treatment**	**2.5-log treatment**	**2-log treatment**	**Note 2**
Bin 4	**2.5-log treatment**	**3-log treatment**	**2.5-log treatment**	**Note 3**

Note 1: As determined by the department such that the total Cryptosporidium removal and inactivation is not less than 4.0-log.

Note 2: As determined by the department such that the total Cryptosporidium removal and inactivation is not less than 5.0-log.

Note 3: As determined by the department such that the total Cryptosporidium removal and inactivation is not less than 5.5-log.

(2) All of the following provisions apply to microbial toolbox options:
(a) Supplies shall use 1 or more of the treatment and management options listed in R 325.10611h, termed the microbial toolbox, to comply with the additional Cryptosporidium treatment required in subrule (1) of this rule.
(b) Supplies classified in Bin 3 and Bin 4 shall achieve not less than 1-log of the additional Cryptosporidium treatment required under subrule (1) of this rule using either 1 or a combination of the following: bag filters, bank filtration, cartridge filters, chlorine dioxide, membranes, ozone, or UV, as described in R 325.10611i to R 325.10611m.
(3) Failure by a supply in a month to achieve treatment credit by meeting criteria in R 325.10611i to R 325.10611m for microbial toolbox options that is not less than equal to the level of treatment required in subrule (1) of this rule is a violation of the treatment technique requirement.
(4) If the department determines during a sanitary survey or an equivalent source water assessment that after a supply completed the monitoring conducted under 40 CFR 141.701(a) or 40 CFR 141.701(b), as adopted by reference in R 325.10720b, significant changes occurred in the supply's watershed that could lead to increased contamination of the source water by Cryptosporidium, the supply shall take actions specified by the department to address the contamination. These actions may include additional source water monitoring or implementing microbial toolbox options listed in R 325.10611h, or both.

R 325.10611g Enhanced treatment for Cryptosporidium; treatment technique; schedule for compliance with Cryptosporidium treatment requirements.
Rule 611g. (1) Following initial bin classification under R 325.10611e(3), Subpart H supplies that are subject to R 325.10611d shall provide the level of treatment for Cryptosporidium required under R 325.10611f according to the schedule in subrule (2) of this rule.
(2) Cryptosporidium treatment compliance dates are listed in the following table:

Table 1 Cryptosporidium Treatment Compliance Dates

Subpart H supplies that serve …	**Shall comply with Cryptosporidium treatment requirements not later than … ***
(a) Not fewer than 100,000 people.	**(i) April 1, 2012.**

(b) From 50,000 to 99,999 people.	**(i) October 1, 2012.**
(c) From 10,000 to 49,999 people.	**(i) October 1, 2013.**
(d) Fewer than 10,000 people.	**(i) October 1, 2014.**

*** The department may allow up to an additional 2 years for complying with the treatment requirement for supplies making capital improvements.**

(3) If the bin classification for a supply changes following the second round of source water monitoring, as determined under R 325.10611e(4), the supply shall provide the level of treatment for Cryptosporidium required under R 325.10611f on a schedule the department approves.

R 325.10611h Enhanced treatment for Cryptosporidium; microbial toolbox options for meeting Cryptosporidium treatment requirements.
Rule 611h. (1) Subpart H supplies that are subject to R 325.10611d receive the treatment credits listed in the table in subrule (2) of this rule by meeting the conditions for microbial toolbox options described in R 325.10611i to R 325.10611m. Subpart H supplies apply these treatment credits to meet the treatment requirements in R 325.10611f.
(2) The following table summarizes options in the microbial toolbox:

Table 1 Microbial Toolbox Summary Table: Options, Treatment Credits, and Criteria

Toolbox Option	**Cryptosporidium treatment credit with design and implementation criteria**
Source Protection and Management Toolbox Options	
(a) Watershed control program	**0.5-log credit for department-approved program comprising required elements, annual program status report to department, and regular watershed survey. Specific criteria are in R 325.10611i(1).**
(b) Alternative source/intake management	**No prescribed credit. Subpart H supplies may conduct simultaneous monitoring for treatment bin classification at alternative intake locations or under alternative intake management strategies. Specific criteria are in R 325.10611i(2).**
Pre Filtration Toolbox Options	
(c) Presedimentation basin with coagulation	**0.5-log credit during a month that presedimentation basins achieve a monthly mean reduction of 0.5-log or greater in turbidity or alternative department-approved performance criteria. To be eligible, basins shall be operated continuously with coagulant addition and all plant flow shall pass through basins. Specific criteria are in R 325.10611j(1).**
(d) Two-stage lime softening	**0.5-log credit for 2-stage softening where chemical addition and hardness precipitation occur in both stages. All plant flow shall pass through both stages. Single-stage softening is credited as equivalent to conventional treatment. Specific criteria are in R 325.10611j(2).**

(e) Bank filtration	**0.5-log credit for 25-foot setback; 1.0- log credit for 50-foot setback; aquifer shall be unconsolidated sand containing not less than 10% fines; average turbidity in wells shall be less than 1 NTU. Subpart H supplies using wells followed by filtration when conducting source water monitoring shall sample the well to determine bin classification and are not eligible for additional credit. Specific criteria are in R 325.10611j(3).**
Treatment Performance Toolbox Options	
(f) Combined filter performance	**0.5-log credit for combined filter effluent turbidity less than or equal to 0.15 NTU in not less than 95% of measurements each month. Specific criteria are in R 325.10611k(1).**
(g) Individual filter performance	**0.5-log credit (in addition to 0.5-log combined filter performance credit) if individual filter effluent turbidity is less than or equal to 0.15 NTU in not less than 95% of samples each month in each filter and is never greater than 0.3 NTU in 2 consecutive measurements in a filter. Specific criteria are in R 325.10611k(2).**
(h) Demonstration of performance	**Credit awarded to unit process or treatment train based on a demonstration to the department with a department-approved protocol. Specific criteria are in R 325.10611k(3).**
Additional Filtration Toolbox Options	
(i) Bag or cartridge filters (individual filters).	**Up to 2-log credit based on the removal efficiency demonstrated during challenge testing with a 1.0-log factor of safety. Specific criteria are in R 325.10611l(1).**
(j) Bag or cartridge filters (in series).	**Up to 2.5-log credit based on the removal efficiency demonstrated during challenge testing with a 0.5-log factor of safety. Specific criteria are in R 325.10611l(1).**
(k) Membrane filtration	**Log credit equivalent to removal efficiency demonstrated in challenge test for device if supported by direct integrity testing. Specific criteria are in R 325.10611l(2).**
(l) Second stage filtration	**0.5-log credit for second separate granular media filtration stage if treatment train includes coagulation before first filter. Specific criteria are in R 325.10611l(3)**
(m) Slow sand filters	**2.5-log credit as a secondary filtration step; 3.0-log credit as a primary filtration process. No prior chlorination for either option. Specific criteria are in R 325.10611l(4).**
Inactivation Toolbox Options	
(n) Chlorine dioxide	**Log credit based on measured CT in relation to CT table. Specific criteria in R 325.10611m(2).**
(o) Ozone	**Log credit based on measured CT in relation to CT table. Specific criteria in R 325.10611m(2).**
(p) UV	**Log credit based on validated UV dose in relation to UV dose table; reactor validation testing required to establish UV dose and associated operating conditions. Specific criteria in R 325.10611m(4).**

R 325.10611i Enhanced treatment for Cryptosporidium; microbial toolbox; source toolbox components.

Rule 611i. (1) Watershed control program is a source toolbox component. Subpart H supplies that are subject to R 325.10611d receive 0.5-log Cryptosporidium treatment credit for implementing a watershed control program that meets all of the following requirements:

(a) Subpart H supplies that intend to apply for the watershed control program credit shall notify the department of this intent not later than 2 years before the treatment compliance date applicable to the supply in R 325.10611g.

(b) Subpart H supplies shall submit to the department a proposed watershed control plan not later than 1 year before the applicable treatment compliance date in R 325.10611g. The supply shall receive department approval of the watershed control plan for the supply to receive watershed control program treatment credit. The watershed control plan shall include all of the following elements:

(i) Identification of an "area of influence" outside of which the likelihood of Cryptosporidium or fecal contamination affecting the treatment plant intake is not significant. This is the area to be evaluated in future watershed surveys under paragraph (ii) of this subdivision.

(ii) Identification of both potential and actual sources of Cryptosporidium contamination and an assessment of the relative impact of these sources on the supply's source water quality.

(iii) An analysis of the effectiveness and feasibility of control measures that could reduce Cryptosporidium loading from sources of contamination to the supply's source water.

(iv) A statement of goals and specific actions the supply will undertake to reduce source water Cryptosporidium levels. The plan shall explain how the actions are expected to contribute to specific goals, identify watershed partners and their roles, identify resource requirements and commitments, and include a schedule for plan implementation with deadlines for completing specific actions identified in the plan.

(c) Subpart H supplies with existing watershed control programs, that is, programs in place on the effective date of this rule, are eligible to seek this credit. Their watershed control plans shall meet the criteria in subdivision (b) of this subrule and shall specify ongoing and future actions that will reduce source water Cryptosporidium levels.

(d) If the department does not respond to a Subpart H supply regarding approval of a watershed control plan submitted under this rule and the supply meets the other requirements of this rule, the watershed control program will be considered approved and 0.5-log Cryptosporidium treatment credit will be awarded unless the department subsequently withdraws that approval.

(e) Subpart H supplies shall complete all of the following actions to maintain the 0.5-log credit:

(i) Submit an annual watershed control program status report to the department. The annual watershed control program status report shall describe the supply's implementation of the approved plan and assess the adequacy of the plan to meet its goals. It shall explain how the supply is addressing the shortcomings in plan implementation, including those previously identified by the department or as the result of the watershed survey conducted under paragraph (ii) of this subdivision. It shall also describe the significant changes that have occurred in the watershed since the last watershed sanitary survey. If a supply determines during implementation that making a significant change to its approved watershed control program is necessary, the supply shall notify the department before making the changes. If a change is likely to reduce the level of source water protection, the supply shall also list in its notification the actions the supply will take to mitigate this effect.

(ii) Undergo a watershed sanitary survey every 3 years for community water supplies and every 5 years for noncommunity water supplies and submit the survey report to the department. The survey shall be conducted according to department guidelines and by persons the department approves. Both of the following apply to watershed sanitary surveys:
(A) The watershed sanitary survey shall encompass the region identified in the department-approved watershed control plan as the area of influence; assess the implementation of actions to reduce source water Cryptosporidium levels; and identify the significant new sources of Cryptosporidium.
(B) If the department determines that significant changes may have occurred in the watershed since the previous watershed sanitary survey, supplies shall undergo another watershed sanitary survey by a date the department requires, which may be earlier than the regular date in this subdivision.
(iii) The supply shall make the watershed control plan, annual status reports, and watershed sanitary survey reports available to the public upon request. These documents shall be in a plain language style and include criteria by which to evaluate the success of the program in achieving plan goals. The department may approve supplies to withhold from the public portions of the annual status report, watershed control plan, and watershed sanitary survey based on water supply security considerations.
(f) If the department determines that a Subpart H supply is not carrying out the approved watershed control plan, the department may withdraw the watershed control program treatment credit.
(2) Alternative source is a source toolbox component. All of the following provisions apply to an alternative source:
(a) A Subpart H supply may conduct source water monitoring that reflects a different intake location, either in the same source or for an alternate source, or a different procedure for the timing or level of withdrawal from the source (alternative source monitoring). If the department approves, a supply may determine its bin classification under R 325.10611e based on the alternative source monitoring results.
(b) If Subpart H supplies conduct alternative source monitoring under subdivision (a) of this subrule, supplies shall also monitor their current plant intake concurrently as described in 40 CFR 141.701, as adopted by reference in R 325.10720b.
(c) Alternative source monitoring under subdivision (a) of this subrule shall meet the requirements for source monitoring to determine bin classification, as described in 40 CFR 141.701 to 40 CFR 141.706, as adopted by reference in R 325.10720b. Subpart H supplies shall report the alternative source monitoring results to the department, along with supporting information documenting the operating conditions under which the samples were collected.
(d) If a Subpart H supply determines its bin classification under R 325.10611e using alternative source monitoring results that reflect a different intake location or a different procedure for managing the timing or level of withdrawal from the source, the supply shall relocate the intake or permanently adopt the withdrawal procedure, as applicable, not later than the applicable treatment compliance date in R 325.10611g.

R 325.10611j Enhanced treatment for Cryptosporidium; microbial toolbox; pre-filtration treatment toolbox components.
Rule 611j. (1) Presedimentation is a pre-filtration treatment toolbox component. Subpart H supplies that are subject to R 325.10611d receive 0.5-log Cryptosporidium treatment credit for a presedimentation basin during any month the process meets all of the following criteria:

(a) The presedimentation basin shall be in continuous operation and shall treat the entire plant flow taken from a surface water or GWUDI source.
(b) The subpart H supply shall continuously add a coagulant to the presedimentation basin.
(c) The presedimentation basin shall achieve either of the following performance criteria:
(i) Demonstrates not less than 0.5-log mean reduction of influent turbidity. This reduction shall be determined using daily turbidity measurements in the presedimentation process influent and effluent and shall be calculated as follows:
log10(monthly mean of daily influent turbidity) - log10(monthly mean of daily effluent turbidity).
(ii) Complies with department-approved performance criteria that demonstrate not less than 0.5-log mean removal of micron-sized particulate material through the presedimentation process.
(2) Two-stage lime softening is a pre-filtration treatment toolbox component. Supplies receive an additional 0.5-log Cryptosporidium treatment credit for a 2-stage lime softening plant if chemical addition and hardness precipitation occur in 2 separate and sequential softening stages before filtration. Both softening stages shall treat the entire plant flow taken from a surface water or GWUDI source.
(3) Bank filtration is a pre-filtration treatment toolbox component. Supplies using bank filtration when they begin source water monitoring under 40 CFR 141.701(a) shall collect samples as described in 40 CFR 141.703(d) and are not eligible for this credit. The department adopts 40 CFR 141.701 and 40 CFR 141.703 by reference in R 325.10720b. Supplies receive Cryptosporidium treatment credit for bank filtration that serves as pretreatment to a filtration plant by meeting all of the following criteria:
(a) Wells with a groundwater flow path of not less than 25 feet receive 0.5-log treatment credit; wells with a groundwater flow path of not less than 50 feet receive 1.0-log treatment credit. The groundwater flow path shall be determined as specified in subdivision (d) of this subrule.
(b) Only wells in granular aquifers are eligible for treatment credit. Granular aquifers are those comprised of sand, clay, silt, rock fragments, pebbles or larger particles, and minor cement. A subpart H supply shall characterize the aquifer at the well site to determine aquifer properties. Supplies shall extract a core from the aquifer and demonstrate that in not less than 90% of the core length, grains less than 1.0 mm in diameter constitute not less than 10% of the core material.
(c) Only horizontal and vertical wells are eligible for treatment credit.
(d) For vertical wells, the groundwater flow path is the measured distance from the edge of the surface water body under high flow conditions, determined by the 100 year floodplain elevation boundary or by the floodway, as defined in Federal Emergency Management Agency flood hazard maps, to the well screen. For horizontal wells, the groundwater flow path is the measured distance from the bed of the river under normal flow conditions to the closest horizontal well lateral screen.
(e) Subpart H supplies shall monitor each wellhead for turbidity at least once every 4 hours while the bank filtration process is in operation. If monthly average turbidity levels, based on daily maximum values in the well, exceed 1 NTU, the supply shall report this result to the department and conduct an assessment within 30 days to determine the cause of the high turbidity levels in the well. If the department determines that microbial removal has been compromised, the department may revoke treatment credit until the supply implements corrective actions approved by the department to remediate the problem.
(f) Springs and infiltration galleries are not eligible for treatment credit under this rule, but are eligible for credit under R 325.10611k(3).
(g) The department may approve Cryptosporidium treatment credit for bank filtration based on a demonstration of performance study. This treatment credit may be greater than 1.0-log and may

be awarded to bank filtration that does not meet the criteria in subdivisions (a) to (e) of this subrule. The bank filtration demonstration of performance study shall meet both of the following criteria:
(i) The study shall follow a department-approved protocol and shall involve the collection of data on the removal of Cryptosporidium or a surrogate for Cryptosporidium and related hydrogeologic and water quality parameters during the full range of operating conditions.
(ii) The study shall include sampling both from the production well or wells and from monitoring wells that are screened and located along the shortest flow path between the surface water source and the production well or wells.

R 325.10611k Enhanced treatment for Cryptosporidium; microbial toolbox; treatment performance toolbox components.
Rule 611k. (1) Combined filter performance is a treatment performance toolbox component. Subpart H supplies that are subject to R 325.10611d and that use conventional filtration treatment or direct filtration treatment receive an additional 0.5-log Cryptosporidium treatment credit during any month the supply meets the criteria in this subrule. Combined filter effluent (CFE) turbidity shall be less than or equal to 0.15 NTU in not less than 95% of the measurements. Turbidity shall be measured as described in R 325.10605 and R 325.10720(2).
(2) Individual filter performance is a treatment performance toolbox component. Compliance with the criteria in this subrule shall be based on individual filter turbidity monitoring as described in R 325.10720(2)(c) to (d). Subpart H supplies using conventional filtration treatment or direct filtration treatment receive 0.5-log Cryptosporidium treatment credit, which can be in addition to the 0.5-log credit under subrule (1) of this rule, during any month the supply meets all of the following criteria:
(a) The filtered water turbidity for each individual filter shall be less than or equal to 0.15 NTU in not less than 95% of the measurements recorded each month.
(b) No individual filter may have a measured turbidity greater than 0.3 NTU in 2 consecutive measurements taken 15 minutes apart.
(c) A supply that has received treatment credit for individual filter performance and fails to meet the requirements of subdivision (a) or (b) of this subrule during any month does not receive a treatment technique violation under R 325.10611f(3) if the department determines both of the following:
(i) The failure was due to unusual and short-term circumstances that could not reasonably be prevented through optimizing treatment plant design, operation, and maintenance.
(ii) The supply has experienced not more than 2 such failures in any calendar year.
(3) Demonstration of performance is a treatment performance toolbox component. The department may approve Cryptosporidium treatment credit for drinking water treatment processes based on a demonstration of performance study. This treatment credit may be greater than or less than the prescribed treatment credits in R 325.10611f or R 325.10611j to R 325.10611m and may be awarded to treatment processes that do not meet the criteria for the prescribed credits. All of the following apply to the demonstration of performance study:
(a) Subpart H supplies cannot receive the prescribed treatment credit for any toolbox option in R 325.10611j to R 325.10611m if that toolbox option is included in a demonstration of performance study for which treatment credit is awarded under this subrule.
(b) The demonstration of performance study shall follow a department-approved protocol, using pilot plant studies or other means, and shall demonstrate the level of Cryptosporidium reduction

the treatment process will achieve under the full range of expected operating conditions for the supply.
(c) Approval by the department shall be in writing and may include monitoring and treatment performance criteria that the supply shall demonstrate and report on an ongoing basis to remain eligible for the treatment credit. The department may designate those criteria where necessary to verify that the conditions under which the demonstration of performance credit was approved are maintained during routine operation.

R 325.10611l Enhanced treatment for Cryptosporidium; microbial toolbox; additional filtration toolbox components.
Rule 611l. (1) Bag and cartridge filters is an additional filtration toolbox component. Subpart H supplies that are subject to R 325.10611d receive Cryptosporidium treatment credit of up to 2.0-log for individual bag or cartridge filters and up to 2.5-log for bag or cartridge filters operated in series. To be eligible for this credit, supplies shall report the results of challenge testing that meets the requirements of subdivisions (b) to (i) of this subrule to the department. The filters shall treat the entire plant flow taken from a surface water or GWUDI source. All of the following apply to bag and cartridge filters as an additional filtration toolbox component:
(a) The Cryptosporidium treatment credit awarded to bag or cartridge filters shall be based on the removal efficiency demonstrated during challenge testing that is conducted according to the criteria in subdivisions (b) to (i) of this subrule. A factor of safety equal to 1-log for individual bag or cartridge filters and 0.5-log for bag or cartridge filters in series shall be applied to challenge testing results to determine removal credit. Subpart H supplies may use results from challenge testing conducted before January 5, 2006 if the prior testing was consistent with the criteria specified in subdivisions (b) to (i) of this subrule.
(b) Challenge testing shall be performed on full-scale bag or cartridge filters, and the associated filter housing or pressure vessel, that are identical in material and construction to the filters and housings the supply will use for removal of Cryptosporidium. Bag or cartridge filters shall be challenge tested in the same configuration that the supply will use, either as individual filters or as a series configuration of filters.
(c) Challenge testing shall be conducted using Cryptosporidium or a surrogate that is removed no more efficiently than Cryptosporidium. The microorganism or surrogate used during challenge testing is referred to as the challenge particulate. The concentration of the challenge particulate shall be determined using a method capable of discreetly quantifying the specific microorganism or surrogate used in the test. Gross measurements such as turbidity may not be used.
(d) The maximum feed water concentration that can be used during a challenge test shall be based on the detection limit of the challenge particulate in the filtrate, that is filtrate detection limit, and shall be calculated using the following equation:
Maximum Feed Concentration = 1 x 10[superscript]4 x (Filtrate Detection Limit)
(e) Challenge testing shall be conducted at the maximum design flow rate for the filter as specified by the manufacturer.
(f) Each filter evaluated shall be tested for a duration sufficient to reach 100% of the terminal pressure drop, which establishes the maximum pressure drop under which the filter may be used to comply with the requirements of R 325.10611d to R 325.10611n and R 325.10720b to R 325.10720e.
(g) Removal efficiency of a filter shall be determined from the results of the challenge test and expressed in terms of log removal values using the following equation:
LRV = LOG10(Cf)-LOG10(Cp)

Where:
LRV = log removal value demonstrated during challenge testing; Cf = the feed concentration measured during the challenge test; and Cp = the filtrate concentration measured during the challenge test. In applying this equation, the same units shall be used for the feed and filtrate concentrations. If the challenge particulate is not detected in the filtrate, then the term Cp shall be set equal to the detection limit.
(h) Each filter tested shall be challenged with the challenge particulate during all of the following periods over the filtration cycle:
(i) Within 2 hours of start-up of a new filter.
(ii) When the pressure drop is between 45 and 55% of the terminal pressure drop.
(iii) At the end of the cycle after the pressure drop has reached 100% of the terminal pressure drop.
Note to subdivision (h) of this subule: An LRV shall be calculated for each of these challenge periods for each filter tested. The LRV for the filter (LRVfilter) shall be assigned the value of the minimum LRV observed during the 3 challenge periods for that filter.
(i) If fewer than 20 filters are tested, the overall removal efficiency for the filter product line shall be set equal to the lowest LRVfilter among the filters tested. If 20 or more filters are tested, the overall removal efficiency for the filter product line shall be set equal to the 10th percentile of the set of LRVfilter values for the various filters tested. The percentile is defined by (i/(n+1)) where i is the rank of n individual data points ordered lowest to highest. If necessary, the 10th percentile may be calculated using linear interpolation.
(j) If a previously tested filter is modified in a manner that could change the removal efficiency of the filter product line, challenge testing to demonstrate the removal efficiency of the modified filter shall be conducted and submitted to the department.
(2) All of the following apply to membrane filtration as an additional filtration toolbox component:
(a) Subpart H supplies receive Cryptosporidium treatment credit for membrane filtration that meets the criteria of this subrule. Membrane cartridge filters that meet the definition of membrane filtration in R 325.10106 are eligible for this credit. The level of treatment credit a supply receives is equal to the lower of the values determined under both of the following:
(i) The removal efficiency demonstrated during challenge testing conducted under the conditions in subdivision (b) of this subrule.
(ii) The maximum removal efficiency that can be verified through direct integrity testing used with the membrane filtration process under the conditions in subdivision (c) of this subrule.
(b) Challenge testing demonstrates removal efficiency. The membrane used by the subpart H supply shall undergo challenge testing to evaluate removal efficiency, and the supply shall report the results of challenge testing to the department. Challenge testing shall be conducted according to all of the criteria in paragraphs (i) to (vii) of this subdivision. Subpart H supplies may use data from challenge testing conducted before January 5, 2006 if the prior testing was consistent with all of the criteria in paragraphs (i) to (vii) of this subdivision.
(i) Challenge testing shall be conducted on either a full-scale membrane module, identical in material and construction to the membrane modules used in the supply's treatment facility, or a smaller-scale membrane module, identical in material and similar in construction to the full-scale module. A module is defined as the smallest component of a membrane unit in which a specific membrane surface area is housed in a device with a filtrate outlet structure.
(ii) Challenge testing shall be conducted using Cryptosporidium oocysts or a surrogate that is removed no more efficiently than Cryptosporidium oocysts. The organism or surrogate used

during challenge testing is referred to as the challenge particulate. The concentration of the challenge particulate, in both the feed and filtrate water, shall be determined using a method capable of discretely quantifying the specific challenge particulate used in the test. Gross measurements such as turbidity may not be used.

(iii) The maximum feed water concentration that can be used during a challenge test is based on the detection limit of the challenge particulate in the filtrate and shall be determined according to the following equation:

Maximum Feed Concentration = 3.16 x 10[superscript]6 x (Filtrate Detection Limit)

(iv) Challenge testing shall be conducted under representative hydraulic conditions at the maximum design flux and maximum design process recovery specified by the manufacturer for the membrane module. Flux is defined as the throughput of a pressure driven membrane process expressed as flow per unit of membrane area. Recovery is defined as the volumetric percent of feed water that is converted to filtrate over the course of an operating cycle uninterrupted by events such as chemical cleaning or a solids removal process, that is, backwashing.

(v) Removal efficiency of a membrane module shall be calculated from the challenge test results and expressed as a log removal value according to the following equation:

LRV = LOG10(Cf)-LOG10(Cp)

Where:

LRV = log removal value demonstrated during the challenge test; Cf = the feed concentration measured during the challenge test; and Cp = the filtrate concentration measured during the challenge test. Equivalent units shall be used for the feed and filtrate concentrations. If the challenge particulate is not detected in the filtrate, the term Cp is set equal to the detection limit for the purpose of calculating the LRV. An LRV shall be calculated for each membrane module evaluated during the challenge test.

(vi) The removal efficiency of a membrane filtration process demonstrated during challenge testing shall be expressed as a log removal value (LRVC-Test). If fewer than 20 modules are tested, then LRVC-Test is equal to the lowest of the representative LRVs among the modules tested. If 20 or more modules are tested, then LRVC-Test is equal to the 10th percentile of the representative LRVs among the modules tested. The percentile is defined by (i/(n+1)) where i is the rank of n individual data points ordered lowest to highest. If necessary, the 10th percentile may be calculated using linear interpolation.

(vii) The challenge test shall establish a quality control release value (QCRV) for a nondestructive performance test that demonstrates the Cryptosporidium removal capability of the membrane filtration module. This performance test shall be applied to each production membrane module used by the supply that was not directly challenge tested in order to verify Cryptosporidium removal capability. Production modules that do not meet the established QCRV are not eligible for the treatment credit demonstrated during the challenge test.

(viii) If a previously tested membrane is modified in a manner that could change the removal efficiency of the membrane or the applicability of the nondestructive performance test and associated QCRV, additional challenge testing to demonstrate the removal efficiency of, and determine a new QCRV for, the modified membrane shall be conducted and submitted to the department.

(c) Direct integrity testing demonstrates removal efficiency. Subpart H supplies shall conduct direct integrity testing in a manner that demonstrates a removal efficiency equal to or greater than the removal credit awarded to the membrane filtration process. A direct integrity test is defined as a physical test applied to a membrane unit in order to identify and isolate integrity

breaches for example, 1 or more leaks that could result in contamination of the filtrate. The direct integrity testing shall meet all of the following requirements:
(i) The direct integrity test shall be independently applied to each membrane unit in service. A membrane unit is defined as a group of membrane modules that share common valving that allows the unit to be isolated from the rest of the system for the purpose of integrity testing or other maintenance.
(ii) The direct integrity method shall have a resolution of 3 micrometers or less, where resolution is defined as the size of the smallest integrity breach that contributes to a response from the direct integrity test.
(iii) The direct integrity test shall have a sensitivity sufficient to verify the log treatment credit awarded to the membrane filtration process by the department, where sensitivity is defined as the maximum log removal value that can be reliably verified by a direct integrity test. Sensitivity shall be determined using the approach in either of the following as applicable to the type of direct integrity test the supply uses:
(A) For direct integrity tests that use an applied pressure or vacuum, the direct integrity test sensitivity shall be calculated according to the following equation:
LRVDIT = LOG10 (Qp /(VCF x Qbreach))
Where:
LRVDIT = the sensitivity of the direct integrity test; Qp = total design filtrate flow from the membrane unit; Qbreach = flow of water from an integrity breach associated with the smallest integrity test response that can be reliably measured, and VCF = volumetric concentration factor. The volumetric concentration factor is the ratio of the suspended solids concentration on the high pressure side of the membrane relative to that in the feed water.
(B) For direct integrity tests that use a particulate or molecular marker, the direct integrity test sensitivity shall be calculated according to the following equation:
LRVDIT = LOG10(Cf)-LOG10(Cp)
Where:
LRVDIT = the sensitivity of the direct integrity test; Cf = the typical feed concentration of the marker used in the test; and Cp = the filtrate concentration of the marker from an integral membrane unit.
(iv) Supplies shall establish a control limit within the sensitivity limits of the direct integrity test that is indicative of an integral membrane unit capable of meeting the removal credit awarded by the department.
(v) If the result of a direct integrity test exceeds the control limit established under paragraph (iv) of this subdivision, the supply shall remove the membrane unit from service. Supplies shall conduct a direct integrity test to verify the repairs, and may return the membrane unit to service only if the direct integrity test is within the established control limit.
(vi) Supplies shall conduct direct integrity testing on each membrane unit at a frequency of at least once each day that the membrane unit is in operation. The department may approve less frequent testing, based on demonstrated process reliability, the use of multiple barriers effective for Cryptosporidium, or reliable process safeguards.
(d) Indirect integrity monitoring is required on membrane units. Supplies shall conduct continuous indirect integrity monitoring on each membrane unit according to all of the criteria in this subdivision. "Indirect integrity monitoring" is defined as monitoring some aspect of filtrate water quality that is indicative of the removal of particulate matter. A supply that implements continuous direct integrity testing of membrane units under the criteria in subdivision (c)(i) to (v) of this subrule is not subject to the requirements for continuous indirect integrity monitoring.

Supplies shall submit a monthly report to the department summarizing all continuous indirect integrity monitoring results triggering direct integrity testing and the corrective action that was taken in each case. All of the following apply to continuous indirect integrity monitoring on each membrane unit:
(i) Unless the department approves an alternative parameter, continuous indirect integrity monitoring shall include continuous filtrate turbidity monitoring.
(ii) Continuous monitoring shall be conducted at a frequency of at least once every 15 minutes.
(iii) Continuous monitoring shall be separately conducted on each membrane unit.
(iv) If indirect integrity monitoring includes turbidity and if the filtrate turbidity readings are above 0.15 NTU for a period greater than 15 minutes, that is, 2 consecutive 15-minute readings above 0.15 NTU, direct integrity testing shall immediately be performed on the associated membrane unit as specified in subdivision (c)(i) to (v) of this subrule.
(v) If indirect integrity monitoring includes a department-approved alternative parameter and if the alternative parameter exceeds a department-approved control limit for a period greater than 15 minutes, direct integrity testing shall immediately be performed on the associated membrane units as specified in subdivision (c)(i) to (v) of this subrule.
(3) Second stage filtration is an additional filtration toolbox component. Subpart H supplies receive 0.5-log Cryptosporidium treatment credit for a separate second stage of filtration that consists of sand, dual media, GAC, or other fine grain media following granular media filtration if the department approves. To be eligible for this credit, the first stage of filtration shall be preceded by a coagulation step and both filtration stages shall treat the entire plant flow taken from a surface water or GWUDI source. A cap, such as GAC, on a single stage of filtration is not eligible for this credit. The department shall approve the treatment credit based on an assessment of the design characteristics of the filtration process.
(4) Slow sand filtration, as secondary filter, is an additional filtration toolbox component. Subpart H supplies may receive 2.5-log Cryptosporidium treatment credit for a slow sand filtration process that follows a separate stage of filtration if both filtration stages treat entire plant flow taken from a surface water or GWUDI source and no disinfectant residual is present in the influent water to the slow sand filtration process. The department shall approve the treatment credit based on an assessment of the design characteristics of the filtration process. This subrule does not apply to treatment credit awarded to slow sand filtration used as a primary filtration process.

R 325.10611m Enhanced treatment for Cryptosporidium; microbial toolbox; inactivation toolbox components.
Rule 611m. (1) Calculation of CT values is an inactivation toolbox component. All of the following apply to CT calculation of subpart H supplies that are subject to R 325.10611d:
(a) CT is the product of the disinfectant contact time (T, in minutes) and disinfectant concentration (C, in milligrams per liter). Subpart H supplies with treatment credit for chlorine dioxide or ozone under subrule (2) or (3) of this rule shall calculate CT at least once each day, with both C and T measured during peak hourly flow as specified in R 325.10605.
(b) Subpart H supplies with several disinfection segments in sequence may calculate CT for each segment, where a disinfection segment is defined as a treatment unit process with a measurable disinfectant residual level and a liquid volume. Under this approach, supplies shall add the Cryptosporidium CT values in each segment to determine the total CT for the treatment plant.
(2) CT values for chlorine dioxide and ozone is an inactivation toolbox component. Both of the following apply to CT values:

(a) Subpart H supplies receive the Cryptosporidium treatment credit listed in the following table by meeting the corresponding chlorine dioxide CT value for the applicable water temperature, as described in subrule (1) of this rule:

CT Values in milligram-minutes per liter (mg-min/L) for Cryptosporidium Inactivation by Chlorine Dioxide *

Log credit	Water Temperature, in degrees Celsius										
	less than or equal to 0.5	1	2	3	5	7	10	15	20	25	30
(i) 0.25	159	153	140	128	107	90	69	45	29	19	12
(ii) 0.5	319	305	279	256	214	180	138	89	58	38	24
(iii) 1.0	637	610	558	511	429	360	277	179	116	75	49
(iv) 1.5	956	915	838	767	643	539	415	268	174	113	73
(v) 2.0	1275	1220	1117	1023	858	719	553	357	232	150	98
(vi) 2.5	1594	1525	1396	1278	1072	899	691	447	289	188	122
(vii) 3.0	1912	1830	1675	1534	1286	1079	830	536	347	226	147

*** Supplies may use this equation to determine log credit between the indicated values: Log credit = (0.001506 x (1.09116)Temp) x CT.**

(b) Subpart H supplies receive the Cryptosporidium treatment credit listed in the following table by meeting the corresponding ozone CT values for the applicable water temperature, as described in subrule (1) of this rule:

CT Values in milligram-minutes per liter (mg-min/L) for Cryptosporidium Inactivation by Ozone *

Log credit	Water Temperature, in degrees Celsius										
	less than or equal to 0.5	1	2	3	5	7	10	15	20	25	30
(i) 0.25	6.0	5.8	5.2	4.8	4.0	3.3	2.5	1.6	1.0	0.6	0.39
(ii) 0.5	12	12	10	9.5	7.9	6.5	4.9	3.1	2.0	1.2	0.78
(iii) 1.0	24	23	21	19	16	13	9.9	6.2	3.9	2.5	1.6
(iv) 1.5	36	35	31	29	24	20	15	9.3	5.9	3.7	2.4
(v) 2.0	48	46	42	38	32	26	20	12	7.8	4.9	3.1
(vi) 2.5	60	58	52	48	40	33	25	16	9.8	6.2	3.9
(vii) 3.0	72	69	63	57	47	39	30	19	12	7.4	4.7

*** Supplies may use this equation to determine log credit between the indicated values: Log credit = (0.0397 x (1.09757)Temp) x CT.**

(3) Site-specific study is an inactivation toolbox component. The department may approve alternative chlorine dioxide or ozone CT values to those listed in subrule (2) of this rule on a site-specific basis. The department shall base this approval on a site-specific study a subpart H supply conducts that follows a department-approved protocol.

(4) Ultraviolet light is an inactivation toolbox component. Subpart H supplies receive Cryptosporidium, Giardia lamblia, and virus treatment credits for ultraviolet (UV) light reactors by achieving the corresponding UV dose values shown in subdivision (a) of this subrule. Supplies shall validate and monitor UV reactors as described in subdivisions (b) and (c) of this subrule to demonstrate that they are achieving a particular UV dose value for treatment credit. All of the following apply to UV:
(a) The following table is the UV dose table. The treatment credits listed in this table are for UV light at a wavelength of 254 nanometers as produced by a low pressure mercury vapor lamp. To receive treatment credit for other lamp types, subpart H supplies shall demonstrate an equivalent germicidal dose through reactor validation testing, as described in subdivision (b) of this subrule. The UV dose values in this table are applicable only to post-filter applications of UV in supplies.

UV Dose Table for Cryptosporidium, Giardia lamblia, and Virus Inactivation Credit

Log credit	Cryptosporidium UV dose in milli-joule per centimeters squared (mJ/ cm^2)	Giardia lamblia UV dose (mJ/cm^2)	Virus UV dose (mJ/cm^2)
(i) 0.5	1.6	1.5	39
(ii) 1.0	2.5	2.1	58
(iii) 1.5	3.9	3.0	79
(iv) 2.0	5.8	5.2	100
(v) 2.5	8.5	7.7	121
(vi) 3.0	12	11	143
(vii) 3.5	15	15	163
(viii) 4.0	22	22	186

(b) Subpart H supplies shall use UV reactors that have undergone validation testing to determine the operating conditions under which the reactor delivers the UV dose required in subdivision (a) of this subrule, that is, validated operating conditions. These operating conditions shall include flow rate, UV intensity as measured by a UV sensor, and UV lamp status. All of the following provisions apply to reactor validation testing:
(i) When determining validated operating conditions, supplies shall account for all of the following factors:
(A) UV absorbance of the water; lamp fouling and aging.
(B) Measurement uncertainty of on-line sensors.
(C) UV dose distributions arising from the velocity profiles through the reactor.
(D) Failure of UV lamps or other critical system components.
(E) Inlet and outlet piping or channel configurations of the UV reactor.
(ii) Validation testing shall include both of the following:
(A) Full scale testing of a reactor that conforms uniformly to the UV reactors used by the supply.
(B) Inactivation of a test microorganism whose dose response characteristics have been quantified with a low pressure mercury vapor lamp.
(iii) The department may approve an alternative approach to validation testing.
(c) Both of the following provisions apply to reactor monitoring:
(i) Supplies shall monitor their UV reactors to determine if the reactors are operating within validated conditions, as determined under subdivision (b) of this subrule. This monitoring shall

include UV intensity as measured by a UV sensor, flow rate, lamp status, and other parameters the department designates based on UV reactor operation. Supplies shall verify the calibration of UV sensors and shall recalibrate sensors under a protocol the department approves.
(ii) To receive treatment credit for UV light, supplies shall treat not less than 95% of the water delivered to the public during each month by UV reactors operating within validated conditions for the required UV dose, as described in subdivisions (a) and (b) of this subrule. Supplies shall demonstrate compliance with this condition by the monitoring required under paragraph (i) of this subdivision.

R 325.10611n Enhanced treatment for Cryptosporidium; requirements to respond to significant deficiencies identified in sanitary surveys performed by U.S. environmental protection agency (EPA).
Rule 611n. (1) A sanitary survey is an onsite review of the water source, identifying sources of contamination by using results of source water assessments, where available, facilities, equipment, operation, maintenance, and monitoring compliance of a community or noncommunity water supply to evaluate the adequacy of the supply, its sources and operations, and the distribution of safe drinking water. Community or noncommunity water supplies are also considered "water supplies" or "supplies" in this rule.
(2) For the purposes of this rule, a significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing the introduction of contamination into the water delivered to consumers.
(3) For sanitary surveys performed by EPA, water supplies shall respond in writing to significant deficiencies identified in sanitary survey reports not later than 45 days after receipt of the report, indicating how and on what schedule the supply will address significant deficiencies noted in the survey.
(4) Supplies shall correct significant deficiencies identified in sanitary survey reports according to the schedule approved by EPA, or if there is no approved schedule, according to the schedule reported under subrule (3) of this rule if those deficiencies are within the control of the supply.

R 325.10612 Groundwater supply rules; general requirements; applicability.
Rule 612. (1) This rule, R 325.10612a, and R 325.10739 to R 325.10739b apply to all community and noncommunity water supplies that use groundwater except that it does not apply to public water supplies that combine all of their groundwater with surface water or with groundwater under the direct influence of surface water before treatment under R 325.10611. For purposes of this rule, R 325.10612a, and R 325.10739 to R 325.10739b, "groundwater supply" is defined as any community water supply or noncommunity water supply meeting this applicability statement, including consecutive supplies receiving finished groundwater.
(2) Groundwater supplies subject to this rule shall comply with all of the following requirements:
(a) Groundwater supplies shall provide the department, at the department's request, any existing information that will enable the department to conduct a sanitary survey as defined in R 325.10108.
(b) Microbial source water monitoring requirements for groundwater supplies that do not treat all of their groundwater to not less than 99.99% (4-log) treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer as described in R 325.10739.

(c) Treatment technique requirements, described in R 325.10612a, that apply to groundwater supplies that have fecally contaminated source waters, as determined by source water monitoring conducted under R 325.10739, or that have significant deficiencies. A significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the department determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers. A groundwater supply with fecally contaminated source water or with significant deficiencies subject to the treatment technique requirements of this rule shall implement 1 or more of the following corrective action options:
(i) Correct all significant deficiencies.
(ii) Provide an alternate source of water.
(iii) Eliminate the source of contamination
(iv) Provide treatment that reliably achieves not less than 4-log treatment of viruses, using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal, before or at the first customer.
(d) Groundwater supplies that provide not less than 4-log treatment of viruses, using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal, before or at the first customer are required to conduct compliance monitoring to demonstrate treatment effectiveness, as described in R 325.10739a.
(e) If requested by the department, groundwater supplies shall provide the department with any existing information that will enable the department to perform a hydrogeologic sensitivity assessment. For the purposes of this rule, "hydrogeologic sensitivity assessment" is a determination of whether groundwater supplies obtain water from hydrogeologically sensitive settings.
(f) Groundwater supplies shall comply, unless otherwise required, with the requirements of this rule beginning December 1, 2009.

R 325.10612a Groundwater supply rules; treatment technique requirements for groundwater supplies.
Rule 612a. (1) All of the following apply to groundwater supplies that are subject to R 325.10612 with significant deficiencies or source water fecal contamination:
(a) The treatment technique requirements of this rule shall be met by groundwater supplies when a significant deficiency is identified or when a groundwater source sample collected under R 325.10739(1)(c) is fecal indicator-positive.
(b) If directed by the department, a groundwater supply with a groundwater source sample collected under sampling requirements of R 325.10739(1)(b), consecutive and wholesale supply requirements of R 325.10739(1)(d), or assessment source water requirements of R 325.10739(2) that is fecal indicator-positive shall comply with the treatment technique requirements of this rule.
(c) When a significant deficiency is identified at a Subpart H supply that uses both groundwater and surface water or groundwater under the direct influence of surface water, the Subpart H supply shall comply with this subrule except where the department determines that the significant deficiency is in a portion of the distribution system that is served solely by surface water or groundwater under the direct influence of surface water.
(d) Unless the department directs the groundwater supply to implement a specific corrective action, the groundwater supply shall consult with the department regarding the appropriate corrective action within 30 days of receiving written notice from the department of a significant

deficiency, written notice from a laboratory that a groundwater source sample collected under R 325.10739(1)(c) was found to be fecal indicator-positive, or direction from the department that a fecal indicator-positive collected under sampling requirements of R 325.10739(1)(b), consecutive and wholesale supply requirements of R 325.10739(1)(d), or assessment source water requirements of R 325.10739(2) requires corrective action. For purposes of this rule, R 325.10612, and R 325.10739 to R 325.10739b, significant deficiencies include defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the department determines to be causing, or have potential for causing, the introduction of contamination into the water delivered to consumers.

(e) Within 120 days, or earlier if directed by the department, of receiving written notification from the department of a significant deficiency, written notice from a laboratory that a groundwater source sample collected under R 325.10739(1)(c) was found to be fecal indicator-positive, or direction from the department that a fecal indicator-positive sample collected under sampling requirements of R 325.10739(1)(b), consecutive and wholesale supply requirements of R 325.10739(1)(d), or assessment source water requirements of R 325.10739(2) requires corrective action, the groundwater supply shall comply with either of the following:

(i) Have completed corrective action under applicable department plan review processes or other department guidance or direction, if any, including department-specified interim measures.

(ii) Be in compliance with a department-approved corrective action plan and schedule subject to both of the following conditions:

(A) Any subsequent modifications to a department-approved corrective action plan and schedule shall also be approved by the department.

(B) If the department specifies interim measures for protection of the public health pending department approval of the corrective action plan and schedule or pending completion of the corrective action plan, the groundwater supply shall comply with these interim measures as well as with any schedule specified by the department.

(f) Groundwater supplies that meet the conditions of subdivision (a) or (b) of this subrule shall implement 1 or more of the following corrective action alternatives:

(i) Correct all significant deficiencies.

(ii) Provide an alternate source of water.

(iii) Eliminate the source of contamination.

(iv) Provide treatment that reliably achieves not less than 4-log treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer for the groundwater source.

(g) A community groundwater supply that receives notice from the department of a significant deficiency or notification of a fecal indicator-positive groundwater source sample that is not invalidated by the department under R 325.10739(3) is subject to R 325.10408c.

(2) Both of the following shall conduct compliance monitoring under R 325.10739a:

(a) A groundwater supply that is not required to meet the source water monitoring requirements of R 325.10612, this rule, R 325.10612b, or R 325.10739 to R 325.10739b for 1 or more groundwater sources because it provides not less than 4-log treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer for 1 or more groundwater sources before December 1, 2009.

(b) A groundwater supply that places a groundwater source in service after November 30, 2009, that is not required to meet the source water monitoring requirements of R 325.10612, this rule, R 325.10612b, or R 325.10739 to R 325.10739b because the groundwater supply provides not less

than 4-log treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer for the groundwater source.
(3) A groundwater supply may discontinue 4-log treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer for a groundwater source if the department determines and documents in writing that 4-log treatment of viruses is no longer necessary for that groundwater source. A groundwater supply that discontinues 4-log treatment of viruses is subject to the source water monitoring requirements of R 325.10739.

R 325.10612b Groundwater supply rules; treatment technique violations for groundwater supplies.
Rule 612b. (1) A groundwater supply subject to R 325.10612 with a significant deficiency is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the department) of receiving written notice from the department of the significant deficiency, either of the following conditions exist:
(a) The groundwater supply does not complete corrective action under any applicable department plan review processes or other department guidance and direction, including department specified interim actions and measures.
(b) The groundwater supply is not in compliance with a department-approved corrective action plan and schedule.
(2) Unless the department invalidates a fecal indicator-positive groundwater source sample under R 325.10739(3), a groundwater supply is in violation of the treatment technique requirement if, within 120 days (or earlier if directed by the department) of meeting the conditions of R 325.10612a(1)(a) or (b), either of the following conditions exist:
(a) The groundwater supply does not complete corrective action under any applicable department plan review processes or other department guidance and direction, including department-specified interim measures.
(b) The groundwater supply is not in compliance with a department-approved corrective action plan and schedule.
(3) A groundwater supply subject to the requirements of R 325.10739a(3) that fails to maintain not less than 4-log treatment of viruses (using inactivation, removal, or a department-approved combination of 4-log virus inactivation and removal) before or at the first customer for a groundwater source is in violation of the treatment technique requirement if the failure is not corrected within 4 hours of determining the groundwater supply is not maintaining not less than 4-log treatment of viruses before or at the first customer.
(4) A groundwater supply shall give public notification under R 325.10403 for the treatment technique violations specified in subrules (1) to (3) of this rule.

PART 7. SURVEILLANCE, INSPECTION, AND MONITORING

R 325.10702 Evaluation of adequacy and condition of public water ~~systems~~ **supplies**; sanitary surveys
Rule 702. (1) Under section 3 of the act, the department shall make sanitary surveys, on-site inspections, surveillance observations, or special purpose investigations for the purpose of evaluating the adequacy and condition of public water ~~systems~~ **supplies** at a frequency which may be determined by the department.

(2) ~~C~~**Unless otherwise required by this rule, c**ommunity and noncommunity water ~~systems~~ **supplies** which do not collect 5 or more routine samples per month under R 325.10705(2) and R 325.10706(2) shall undergo an initial sanitary survey by June 29, 1994, for community water systems and by June 29, 1999, for noncommunity water systems. These systems shall undergo another sanitary survey every 5 years, except noncommunity water ~~systems~~ **supplies** that use only disinfected groundwater not under the direct influence of surface water meeting state drinking water standards shall undergo subsequent sanitary surveys at least once every 10 years after the initial sanitary survey. Based on the results of each sanitary survey, the department shall determine whether the existing monitoring frequency is adequate and what additional measures, if any, the supplier shall take to improve drinking water quality. **Sanitary surveys conducted under subrule (4) of this rule may be used to meet the sanitary survey requirements of this subrule.**

(3) Subpart H systems shall undergo sanitary surveys at least once every 3 years for community water ~~systems~~ **supplies** and at least once every 5 years for noncommunity water ~~systems~~ **supplies**. Community water ~~systems~~ **supplies** that have undergone sanitary surveys after December 1995 and have demonstrated outstanding performance may reduce the frequency of sanitary surveys to at least once every 5 years.

(4) This subrule is applicable to public water supplies that are subject to the groundwater supply provisions of R 325.10612. Both of the following apply:

(a) Community water supplies shall undergo a sanitary survey at least every 3 years, except as provided in subdivision (b) of this subrule. Noncommunity water supplies shall undergo a sanitary survey at least every 5 years. Each community water supply shall undergo the initial sanitary survey by December 31, 2012, unless the supply meets the requirements of subdivision (b) of this subrule. Each community water supply that meets the requirements of subdivision (b) of this subrule and each noncommunity water supply shall undergo an initial sanitary survey by December 31, 2014.

(b) The department may reduce the frequency of sanitary surveys to once every 5 years for community water supplies if the supply meets either of the following criteria:

(i) The supply provides at least 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log inactivation and removal) before or at the first customer for all its groundwater sources.

(ii) The supply has an outstanding performance record.

R 325.10707a Invalidation of total coliform samples.

Rule 707a. (1) A total coliform sample result may be invalidated by the department in ~~any~~ **1 or more** of the following instances:

(a) A laboratory determines that analytical results are invalid due to any of the following situations:

(i) In the absence of gas, any turbid culture in the mtf or p-a techniques.

(ii) Confluent growth.

(iii) Any sample that is inoculated 30 hours or more after it was collected.

(iv) Improper sample analysis caused a total coliform positive result.

If a sample is invalidated under this subdivision, the water supply shall collect another sample from the same location as the original sample within 24 hours of being notified until a valid result is obtained. The department may waive the 24-hour time limit on a case-by-case basis.

(b) The department, on the basis of the results of repeat samples, determines that the total coliform positive sample ~~resulted from a domestic or other nondistribution system plumbing problem~~ **result, which is from a sample tap that is approved in the sample siting plan, is isolated to that specific sample location**. An invalidation under this subrule may occur **only** if the repeat samples from the

same sampling location are total coliform positive and all other repeat samples are total coliform negative.
(c) Substantial evidence suggests that a total coliform positive result is due to ~~a circumstance or condition that~~ **use of an unapproved sample location or documented gross deviation from accepted sample collection procedures that clearly could be expected to contaminate the sample itself and the result** does not reflect water quality in the distribution system. The ~~supplier of water~~ **water supply** shall still collect all required repeat samples **from approved sites on the sample siting plan**.
(2) The decision to invalidate a total coliform positive sample shall be in writing and available to EPA and the public.
(3) A total coliform positive sample shall not be invalidated solely because all repeat samples are total coliform negative.
~~(4) If a sample is invalidated pursuant to the provisions of subrule (1) of this rule, a supplier of water shall collect another sample from the same location as the original sample within 24 hours of being notified until a valid result is obtained. The department may waive the 24 hour time limit on a case by case basis.~~

R 325.10708 Collection of additional samples.
Rule 708. If a sample which is needed to meet monitoring requirements is invalidated ~~pursuant to the provisions of~~ **under** R 325.10707a, and the ~~supplier of water~~ **public water supply** does not learn of the invalidation until the following monitoring period, or if the department collects a sample for the purpose of enforcement when a ~~supplier of water~~ **public water supply** is delinquent in meeting a monitoring requirement, ~~any samples collected pursuant to the provisions of R 325.10707a(4)~~ **then the valid sample collected** may be used ~~in determining~~ **to determine** compliance with ~~the provisions of~~ R 325.10705 and R 325.10706. However, a single sample shall not be attributed to more than 1 monitoring period.

R 325.10710a ~~Monitoring requirements for lead~~ **Lead** and copper in tap water**; monitoring requirements**.
Rule 710a. (1) Sample site location provisions for lead and copper monitoring in tap water **of community and nontransient noncommunity water supplies** are as follows:
(a) By the applicable date for the commencement of monitoring under subrule (4)(a) of this rule, each ~~supplier~~ **water supply** shall complete a materials evaluation of its distribution system to identify a pool of targeted sampling sites that is in compliance with the requirements of this rule and that is large enough to ensure that the ~~supplier~~ **water supply** can collect the number of lead and copper tap samples required under subrule (3) of this rule. All sites from which first draw samples are collected shall be selected from the pool of targeted sampling sites. Sampling sites may include faucets that have point of use or point of entry treatment devices designed to remove inorganic contaminants only if the devices have been approved by the department for the purpose of optimizing corrosion control.
(b) A ~~supplier~~ **water supply** shall use the information on lead, copper, and galvanized steel that it is required to collect under 40 C.F.R. §141.42(d), ~~December 5, 1994,~~ (Special Monitoring for Corrosivity Characteristics) when conducting a materials evaluation. When an evaluation of the information collected under 40 C.F.R. §141.42(d), is insufficient to locate the requisite number of lead and copper sampling sites that are in compliance with the targeting criteria in this subrule, the ~~supplier~~ **water supply** shall review the sources of information listed in paragraphs (i) to (iii) of this subdivision to identify a sufficient number of sampling sites. The provisions of 40 C.F.R. §141.42(d), ~~December 5, 1994~~ **(2008)**, are adopted by reference. The adopted material is **contained in Title 40 CFR Parts 136 to 149, which is** available from the Superintendent of Documents at the address in R 325.10116(b) for a

cost of ~~$47.00~~ **$64.00** at the time of adoption of these rules. The adopted material is available for inspection, or ~~copies are~~ **a copy is** available at no cost from the offices of the department at the address in R 325.10116(a). In addition, the ~~supplier~~ **supply** shall collect all of the following information, where possible, in the course of its normal operations, for example, checking service line materials when reading water meters or performing maintenance activities:
(i) All plumbing codes, permits, and records in the files of the building department or departments that indicate the plumbing materials installed within publicly and privately owned structures connected to the distribution system.
(ii) All inspections and records of the distribution system that indicate the material composition of the service connections connecting a structure to the distribution system.
(iii) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, that indicates locations which may be particularly susceptible to high lead or copper concentrations.
(c) The sampling sites selected for a community water ~~system's~~ **supply's** sampling pool (tier 1 sampling sites) shall consist of single family structures to which either or both of the following provisions apply:
(i) The structures contain copper pipes soldered with lead and installed after 1982 or that contain lead pipes.
(ii) The structures are served by a lead service line. When multiple family residences comprise not less than 20% of the structures served by a ~~system, the supplier~~ **water supply, the supply** may include these types of structures in its sampling pool.
(d) ~~For a~~ **A** community water ~~system~~ **supply** that has insufficient tier 1 sampling sites~~, the sampling pool shall be completed~~ **shall complete its sampling pool** with tier 2 sampling sites, that consist of buildings, including multiple family residences to which either or both of the following provisions apply:
(i) The structures contain copper pipes soldered with lead and installed after 1982 or that contain lead pipes.
(ii) The structures are served by a lead service line.
(e) ~~For a~~ **A** community water ~~system~~ **supply** that has insufficient tier 1 and tier 2 sampling sites~~, the sampling pool shall be completed~~ **shall complete its sampling pool** with tier 3 sampling sites, that consist of single family structures containing copper pipes soldered with lead and installed before 1983. ~~The supplier of a~~ **A** community water ~~system~~ **supply** with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For purposes of this subrule, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the system.
(f) The sampling sites selected for a nontransient, noncommunity water ~~system~~ **supply** (tier 1 sampling sites) shall consist of buildings to which either or both of the following provisions apply:
(i) The structures contain copper pipes soldered with lead and installed after 1982 or that contain lead pipes.
(ii) The structures are served by a lead service line.
(g) ~~The supplier of a~~ **A** nontransient, noncommunity water ~~system~~ **supply** that has insufficient tier 1 sites shall complete its sampling pool with sampling sites containing copper pipes soldered with lead and installed before 1983. If additional sites are needed to complete the sampling pool, the ~~supplier of a~~ nontransient noncommunity water ~~system~~ **supply** shall use representative sites throughout the distribution system. For purposes of this subrule, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the system.
(h) ~~If a~~ **A water supply whose** distribution system contains lead service lines~~, the supplier~~ shall draw 50% of the samples ~~collected~~ **it collects** during each monitoring period from sites that contain lead pipes

or copper pipes with lead solder and 50% of the samples from sites served by a lead service line. A ~~supplier~~ **water supply** that cannot identify a sufficient number of sampling sites that are served by a lead service line shall collect first draw tap samples from all of the sites identified as being served by lead service lines and shall complete its sampling pool in compliance with subdivisions (c) to (g) of this subrule.

(2) Sample collection methods provisions for lead and copper monitoring in tap water are as follows:

(a) All tap samples for lead and copper collected in compliance with this subrule, with the exception of lead service line samples collected under R 325.10604f(5)(c), and samples collected under subdivision (e) of this subrule, shall be first draw samples.

(b) Each first draw tap sample for lead and copper shall be 1 liter in volume and have stood motionless in the plumbing system of each sampling site for not less than 6 hours. First draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First draw samples from a nonresidential building shall be 1 liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first draw samples collected instead of first draw samples ~~pursuant to~~ **under** subdivision (e) of this subrule shall be 1 liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First draw samples may be collected by the ~~supplier or the supplier~~ **supply or the supply** may allow residents to collect first draw samples after instructing the residents about the sampling procedures specified in this subdivision. To avoid problems of residents handling nitric acid, acidification of first draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample shall stand in the original container for the time specified in the approved ~~epa~~ **EPA** method before the sample can be analyzed. If a ~~supplier~~ **supply** allows residents to perform sampling, the ~~supplier~~ **supply** shall not challenge the accuracy of the sampling results based on alleged errors in sample collection.

(c) Each service line sample shall be 1 liter in volume and have stood motionless in the lead service line for not less than 6 hours. Lead service line samples shall be collected in 1 of the following 3 ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line.

(ii) Tapping directly into the lead service line.

(iii) If the sampling site is a building constructed as a single family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(d) A ~~supplier~~ **water supply** shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the ~~supplier~~ **water supply** cannot gain entry to a sampling site to collect a follow-up tap sample, the ~~supplier~~ **supply** may collect the follow-up tap sample from another sampling site in its sampling pool.

(e) ~~The supplier of a~~ **A** nontransient noncommunity water ~~system~~ **supply**, or a community water ~~system~~ **supply** that meets the criteria of ~~R 325.10410(8)(a) and (b)~~ **R 325.10410(3)(g)**, that does not have enough taps that can supply first draw samples, as defined in R 325.10105~~(d)~~, may apply to the department, in writing, to substitute non-first draw samples. The ~~supplier~~ **supply** shall collect as many first draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The department has the discretion to waive the requirement for prior department approval of non-first draw sample sites selected by the ~~supplier~~ **supply**, either through department regulation or written notification to the ~~supplier~~ **supply**.

(3) ~~Suppliers~~ **Water supplies** shall collect at least 1 sample during each monitoring period specified in subrule (4) of this rule from the number of sites listed in the standard monitoring column under this subrule. A ~~supplier~~ **supply** that conducts reduced monitoring under subrule (4)(d) of this rule shall collect at least 1 sample from the number of sites specified in the reduced monitoring column under this subrule during each monitoring period specified in subrule (4)(d) of this rule. The reduced monitoring sites shall be representative of the sites required for standard monitoring. **A public water supply that has fewer than 5 drinking water taps, that can be used for human consumption meeting the sample site criteria of subrule (1) of this rule to reach the required number of sample sites listed in this subrule, shall collect at least 1 sample from each tap and then shall collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively the department may allow these public water supplies to collect a number of samples less than the number of sites specified in this rule, provided that 100% of all taps that can be used for human consumption are sampled. The department shall approve this reduction of the minimum number of samples in writing based on a request from the supply or onsite verification by the department.** The department may specify sampling locations when a ~~system~~ **water supply** is conducting reduced monitoring.

~~System~~ **Supply** Size (Number of People Served)	Number of Sites (Standard Monitoring)	Number of Sites (Reduced Monitoring)
More than 100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
Fewer than 101	5	5

(4) Provisions for the timing of monitoring for lead and copper in tap water are as follows:
(a) The first 6-month monitoring period for small, medium size, and large water ~~systems~~ **supplies** shall begin on the following dates:

~~System~~ **Supply** Size (Number of People Served)	First 6-Month Monitoring Period Begins On
More than 50,000	January 1, 1992
3,301 to 50,000	July 1, 1992
Fewer than 3,301	July 1, 1993

All large water ~~systems~~ **supplies** shall be monitored during 2 consecutive 6-month periods. All small and medium size water ~~systems~~ **supplies** shall be monitored during each 6-month monitoring period until either of the following occurs:
(i) The ~~system~~ **supply** exceeds the lead or copper action level and ~~the supplier~~ is therefore required to implement the corrosion control treatment under R 325.10604f(2), in which case the ~~supplier~~ **supply** shall continue monitoring under subdivision (b) of this subrule.
(ii) The ~~system~~ **supply** is in compliance with the lead and copper action levels during 2 consecutive 6-month monitoring periods, in which case the ~~supplier~~ **supply** may reduce monitoring under subdivision (d) of this subrule.
(b) Monitoring provisions after the installation of corrosion control and source water treatment are as follows:

(i) ~~The supplier of a~~ **A** large water ~~system~~ **supply** that installs optimal corrosion control treatment under R 325.10604f(2)(d)(iii) shall monitor during 2 consecutive 6 month monitoring periods by the date specified in R 325.10604f(2)(d)(iv).
(ii) ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** that installs optimal corrosion control treatment under R 325.10604f(2)(e)~~(v)~~**(iv)** shall monitor during 2 consecutive 6-month monitoring periods by the date specified in R 325.10604f(2)(e)~~(vi)~~**(v)**.
(iii) A ~~supplier~~ **supply** that installs source water treatment under R 325.10604f(4)(a)(ii) shall monitor during 2 consecutive 6-month monitoring periods by the date specified in R 325.10604f(4)(a)(iii).
(c) After the department specifies the values for water quality control parameters, the ~~supplier~~ **supply** shall monitor during each subsequent 6-month monitoring period, with the first monitoring period to begin on the date the department specifies the optimal values.
(d) Reduced monitoring provisions are as follows:
(i) ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** that is in compliance with the lead and copper action levels during each of 2 consecutive 6-month monitoring periods may reduce the number of samples under subrule (3) of this rule and may reduce the frequency of sampling to once each year. **A small or medium size water supply collecting fewer than 5 samples as specified in subrule (3) of this rule, that meets the lead and copper action levels during each of 2 consecutive 6-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the supply reduce the number of samples required below the minimum of 1 sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive 6-month monitoring period.**
(ii) ~~A supplier of a small, medium size, or large water system that~~ **A water supply that meets the lead action level and** maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the department **under R 325.10604f(3)(f)** during each of 2 consecutive 6-month monitoring periods may reduce the frequency of monitoring ~~for lead and copper at the tap~~ to once each year and reduce the number of lead and copper samples under subrule (3) of this rule if it receives written approval from the department. **This sampling shall begin during the calendar year immediately following the end of the second consecutive 6-month monitoring period. The department shall review monitoring, treatment, and other relevant information submitted by the water supply under R 325.10710d, and shall notify the supply in writing when it determines the supply is eligible to commence reduced monitoring under this subrule. The department shall review, and where appropriate, revise its determination when the supply submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.**
(iii) ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** that is in compliance with the lead and copper action levels during 3 consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every 3 years. **A small or medium size water supply collecting fewer than 5 samples as specified in subrule (3) of this rule, that meets the lead and copper action levels during 3 consecutive years of monitoring may reduce the frequency of sampling to once every 3 years.** ~~A supplier of a small, medium size, or large water system that~~ **A water supply that meets the lead action level and** maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the department **under R 325.10604f(3)(f)** during 3 consecutive years of monitoring may reduce the frequency of monitoring for lead and copper at the tap from annually to once every 3 years if it receives written approval from the department. **Samples collected once every 3 years shall be collected not later than every third calendar year. The department shall review monitoring, treatment, and other relevant information submitted by the supply under R 325.10710d, and shall notify the supply in writing**

when it determines the supply is eligible to reduce the frequency of monitoring to once every 3 years. The department shall review, and where appropriate, revise its determination when the supply submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A ~~supplier who~~ **water supply that** reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in subrule (1) of this rule. A ~~supplier who~~ **water supply that** samples annually or less frequently shall conduct the lead and copper tap sampling during the month of June, July, August, or September unless the department has approved a different sampling period under subparagraph (A) of this paragraph, as follows:

(A) The department, at its discretion, may approve a different period for conducting the lead and copper tap sampling for ~~suppliers~~ **supplies** collecting a reduced number of samples. The period shall be ~~no~~ **not** longer than 4 consecutive months and shall represent a time of normal operation where the highest levels of lead are most likely to occur. For a nontransient noncommunity water ~~system~~ **supply** that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the department shall designate a period that represents a time of normal operation for the ~~system~~ **water supply**. **This sampling shall begin during the period approved or designated by the department in the calendar year immediately following the end of the second consecutive 6-month monitoring period for supplies initiating annual monitoring and during the 3-year period following the end of the third consecutive calendar year of annual monitoring for supplies initiating triennial monitoring.**

(B) ~~Suppliers~~ **Supplies** monitoring annually that have been collecting samples during the months of June through September and that received department approval to alter their sample collection period under subparagraph (A) of this paragraph, shall collect their next round of samples during a time period that ends ~~no~~ **not** later than 21 months after the previous round of sampling. ~~Suppliers~~ **Supplies** monitoring triennially that have been collecting samples during the months of June through September, and receive department approval to alter the sampling collection period under subparagraph (A) of this paragraph, shall collect their next round of samples during a time period that ends ~~no~~ **not** later than 45 months after the previous round of sampling. Subsequent rounds of sampling shall be collected annually or triennially, as required by this subrule. ~~Suppliers of small~~ **Small** water ~~systems~~ **supplies** with waivers, granted under subrule (7) of this rule, that have been collecting samples during the months of June through September and that received department approval to alter their sample collection period under subparagraph (A) of this paragraph shall collect their next round of samples before the end of the 9-year cycle.

(v) A ~~supplier~~ **water supply** that demonstrates for 2 consecutive 6-month monitoring periods that the tap water lead level computed under R 325.10604f(1)(c) is less than or equal to 0.005 mg/l and the tap water copper level computed under R 325.10604f(1)(c) is less than or equal to 0.65 mg/l may reduce the number of samples under subrule (3) of this rule and reduce the frequency of sampling to once every 3 calendar years.

(vi) The following provisions apply to supplies subject to reduced monitoring:

(A) ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling under subdivision (c) of this subrule and shall collect the number of samples specified for the standard monitoring under subrule (3) of this rule. The ~~supplier~~ **supply** shall also conduct water quality parameter monitoring under R 325.10710b(4), (5), or (6), as appropriate, during the monitoring period in which ~~the system~~ **it** exceeded the action level. The ~~supplier~~ **supply** may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subrule (3) of this rule after it has completed 2 subsequent consecutive 6-month

rounds of monitoring that meet the criteria of paragraph (i) of this subdivision or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (iii) or (v) of this subdivision.

(B) ~~If a system~~ **A water supply** subject to the reduced monitoring frequency **that** fails to **meet the lead action level during a 4-month monitoring period or that fails to** operate at or above the minimum value or within the range of values for the water quality parameters specified by the department **under R 325.10604f(3)(f)** for more than 9 days in a 6-month period specified in R 325.10710b(6)~~, the supplier~~ shall conduct tap water sampling for lead and copper at the frequency specified in subdivision (c) of this subrule, collect the number of samples specified for standard monitoring under subrule (3) of this rule, and shall resume monitoring for water quality parameters within the distribution system under R 325.10710b(6). **This standard tap water sampling shall begin not later than the 6-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion.** The ~~supplier~~ **supply** may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(1) The ~~supplier~~ **supply** may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in subrule (3) of this rule after it has completed 2 subsequent 6-month rounds of monitoring that meet the criteria of paragraph (ii) of this subdivison and the ~~supplier~~ **supply** has received written approval from the department to resume reduced monitoring on an annual frequency. **This sampling shall begin during the calendar year immediately following the end of the second consecutive 6-month monitoring period.**

(2) The ~~supplier~~ **supply** may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (iii) or (v) of this subdivision and the ~~supplier~~ **supply** has received written approval from the department to resume triennial monitoring.

(3) The ~~supplier~~ **supply** may reduce the number of water quality parameter tap water samples required under R 325.10710b(7)(a) and the frequency with which it collects the samples under R 325.10710b(7)(b). The ~~supplier~~ **supply** may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, under the requirements of R 325.10710b(7)(b), that it has requalified for triennial monitoring.

(vii) ~~For a system~~ **A water supply** subject to a reduced monitoring frequency under subdivision (d) of this subrule~~, if the supplier either adds a new source of water or changes the water treatment, it~~ shall ~~inform~~ **notify** the department in writing under R 325.10710d~~(1)~~(a)(iii) **of any upcoming long-term change in treatment or addition of a new source as described in that rule. The department shall review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water supply.**. The department may require the ~~supplier~~ **supply** to resume sampling under subdivision (c) of this subrule and collect the number of samples specified for standard monitoring under subrule (3) of this rule or take other appropriate steps such as increased water quality parameter monitoring or reevaluation of its corrosion control treatment given the potentially different water quality considerations.

(5) The results of monitoring conducted in addition to the minimum requirements of this rule shall be considered in calculating the ninetieth percentile lead or copper level.

(6) A sample invalidated under this subrule does not count toward determining lead or copper ninetieth percentile levels under R 325.**10**604f(1)(c) or toward meeting the minimum monitoring requirements of subrule (3) of this rule. All of the following provisions apply to invalidating samples:

(a) The department may invalidate a lead or copper tap water sample if at least 1 of the following conditions is met:

(i) The laboratory establishes that improper sample analysis caused erroneous results.
(ii) The department determines that the sample was taken from a site that did not meet the site selection criteria of this rule.
(iii) The sample container was damaged in transit.
(iv) There is substantial reason to believe that the sample was subject to tampering.
(b) The ~~supplier~~ **supply** shall report the results of all samples to the department and all supporting documentation for samples the ~~supplier~~ **supply** believes should be invalidated.
(c) To invalidate a sample under subdivision (a) of this subrule, the decision and the rationale for the decision shall be documented in writing. The department may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.
(d) The ~~supplier~~ **water supply** shall collect replacement samples for the samples invalidated under this rule if, after the invalidation of 1 or more samples, the ~~supplier~~ **supply** has too few samples to meet the minimum requirements of subrule (3) of this rule. The replacement samples shall be taken as soon as possible, but not later than 20 days after the date the department invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.
(7) ~~The supplier of a~~ **A** small water ~~system~~ **supply** that meets the criteria of this subrule may apply to the department to reduce the frequency of monitoring for lead and copper under this rule to once every 9 years, that is, a "full waiver", if it meets all of the materials criteria specified in subdivision (a) of this subrule and all of the monitoring criteria specified in subdivision (b) of this subrule. If a small water ~~system~~ **supply** meets the criteria in subdivisions (a) and (b) of this subrule only for lead, or only for copper, the ~~supplier~~ **supply** may apply to the department for a waiver to reduce the frequency of tap water monitoring to once every 9 years for that contaminant only, that is, a "partial waiver". **All of the following apply:**
(a) The ~~supplier~~ **supply** shall demonstrate that its distribution system and service lines and all drinking water system plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead containing materials or copper containing materials, or both, as those terms are defined in this subdivision, as follows:
(i) To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead, that is, a "lead waiver", the ~~supplier~~ **water supply** shall provide certification and supporting documentation to the department that the ~~system~~ **supply** is free of all lead containing materials and that the ~~system~~ **supply** complies with both of the provisions in this paragraph. Lead free is defined in the international plumbing code, ~~2000~~ **2003** edition, which is adopted by reference in ~~R 407.30701~~ **R 408.30701**. **Both of the following apply:**
(A) ~~The system~~ **It** does not contain plastic pipes that contain lead plasticizers or plastic service lines that contain lead plasticizers.
(B) ~~The system~~ **It** is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the fittings and fixtures meet the specifications of standards established ~~pursuant to~~ **under** "Prohibition on Use of Lead Pipes, Solder, and Flux: Plumbing Fittings and Fixtures" 42 U.S.C. 300G-6(e), **(2006),** which are adopted by reference. The adopted material is available from the Superintendent of Documents at the address in R 325.10116(b) for a cost of ~~$56.00~~ **$87.00** at the time of adoption of these rules. The adopted material is available for inspection, or ~~copies are~~ **a copy is** available at no cost from the offices of the department at the address in R 325.10116(a).

(ii) To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper, that is, a "copper waiver", the ~~supplier~~ **water supply** shall provide certification and supporting documentation to the department that the ~~system~~ **supply** does not contain copper pipes or copper service lines.
(b) The ~~supplier~~ **supply** shall have completed at least ~~1 6~~ **one 6-**month round of standard tap water monitoring for lead and copper at sites approved by the department and from the number of sites required by subrule (3) of this rule and demonstrate that the ninetieth percentile levels for all rounds of monitoring conducted since the ~~system~~ **supply** became free of all lead containing or copper containing materials, or both, as appropriate, meet the following criteria:
(i) To qualify for a full waiver or a lead waiver, the ~~supplier~~ **supply** shall demonstrate that the ninetieth percentile lead level does not exceed 0.005 mg/l.
(ii) To qualify for a full waiver or a copper waiver, the ~~supplier~~ **supply** shall demonstrate that the ninetieth percentile copper level does not exceed 0.65 mg/l.
(c) The department shall notify the ~~system~~ **supply** of its waiver determination, in writing setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the department may require the ~~supplier~~ **supply** to perform specific activities, for example, limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver, to avoid the risk of lead or copper concentration of concern in tap water. The ~~supplier~~ **small supply** shall continue monitoring for lead and copper at the tap as required by subdivisions (a) ~~through~~ **to** (d) of this subrule, as appropriate, until it receives written notification from the department that the waiver has been approved.
(d) Monitoring frequencies for supplies with waivers are as follows:
(i) ~~For a system~~ **A supply** with a full waiver~~, the supplier~~ shall conduct tap water monitoring for lead and copper under subrule (4)(d)(iv) of this rule at the reduced number of sampling sites identified in subrule (3) of this rule at least once every 9 years and provide the materials certification specified in subdivision (a) of this subrule for both lead and copper to the department along with the monitoring results. **Samples collected every 9 years shall be collected not later than every ninth calendar year.**
(ii) ~~For a system~~ **A supply** with a partial waiver~~, the supplier~~ shall conduct tap water monitoring for the waived contaminant under subrule (4)(d)(iv) of this rule at the reduced number of sampling sites specified in subrule (3) of this rule at least once every 9 years and provide the materials certification specified in subdivision (a) of this subrule pertaining to the waived contaminant along with the monitoring results. **Samples collected every 9 years for the waived contaminant shall be collected not later than every ninth calendar year.** The ~~supplier~~ **supply** also shall continue to monitor for the non-waived contaminant under requirements of subrule (4)(a) ~~through~~ **to** (d) of this rule, as appropriate.
(iii) ~~For a system~~ **A water supply** with a full or partial waiver~~, if the supplier adds a new source of water or changes the water treatment, it~~ shall notify the department, in writing, under R 325.10710d(a)(iii) **of an upcoming long-term change in treatment or addition of a new source, as described in that rule. The department shall review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water supply**. The department has the authority to require the ~~supplier~~ **water supply** to add or modify waiver conditions, for example, require recertification that the system is free of lead containing or copper containing materials, or both, require additional round or rounds of monitoring, if it considers the modifications are necessary to address treatment or source water changes at the ~~system~~ **water supply**.
(iv) ~~For a system~~ **If a water supply** with a full or partial waiver~~, if the supplier~~ becomes aware that ~~the system~~ **it** is no longer free of lead containing or copper containing materials, as appropriate, for example, as a result of new construction or repairs, the ~~supplier~~ **supply** shall notify the department, in writing, not later than 60 days after becoming aware of the change.

(e) If the ~~supplier~~ **supply** continues to satisfy the requirements of subdivision (d) of this subrule, the waiver will be renewed automatically, unless a condition listed in paragraphs (i) ~~through~~ **to** (iii) of this subdivision occurs. ~~For a system~~ **A supply** whose waiver has been revoked~~, the supplier~~ may reapply for a waiver if it again meets the appropriate materials and monitoring criteria of subdivisions (a) and (b) of this subrule. The waiver is revoked if any of the following conditions exist:
(i) A ~~system~~ **supply** with a full waiver or a lead waiver no longer satisfies the materials criteria of subdivision (a)(i) of this subrule or has a ninetieth percentile lead level of more than 0.005 mg/l.
(ii) A ~~system~~ **supply** with a full waiver or a copper waiver no longer satisfies the materials criteria of subdivision (a)(ii) of this subrule or has a ninetieth percentile copper level of more than 0.65 mg/l.
(iii) The department notifies the ~~supplier~~ **supply**, in writing setting forth the basis of its decision, that the waiver has been revoked.
(f) A ~~system~~ **supply** whose full or partial waiver has been revoked by the department is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:
(i) If the ~~system~~ **supply** exceeds the lead or copper action level, or both, the ~~supplier~~ **supply** shall implement corrosion control treatment under the deadlines specified in R 325.10604f(2)(e) and other applicable requirements of this part.
(ii) If the ~~system~~ **supply** meets both the lead and the copper action level, the ~~supplier~~ **supply** shall monitor for lead and copper at the tap not less frequently than once every 3 years using the reduced number of sample sites specified in subrule (3) of this rule.
(g) Small water ~~system~~ **supply** waivers approved by the department, in writing, before April 11, 2000, shall remain in effect if the ~~supplier~~ **supply** has demonstrated that ~~the system~~ **it** is both free of lead containing and copper containing materials, as required by subdivision (a) of this subrule, and that ~~the system's~~ **its** ninetieth percentile lead levels and ninetieth percentile copper levels meet the criteria of subdivision (b) of this subrule, and that the ~~supplier~~ **supply** continues to meet the waiver eligibility criteria of subdivision (e) of this subrule. The first round of tap water monitoring conducted ~~pursuant to~~ **under** subdivision (d) of this subrule shall be completed not later than 9 years after the last time the ~~supplier~~ **supply** has monitored for lead and copper at the tap.

R 325.10710b Monitoring requirements for supplies exceeding lead and copper action levels.
Rule 710b. (1) The requirements of this rule are summarized in table 1 of this rule. ~~Suppliers of the following systems~~ **The following community and nontransient noncommunity water supplies, which are considered "water supplies" or "supplies" in this rule,** shall monitor for water quality parameters in addition to lead and copper under this rule:
(a) Large water ~~systems~~ **supplies**.
(b) Small and medium size water ~~systems~~ **supplies** that exceed the lead or copper action level.
(2) Sample collection methods provisions are as follows:
(a) Tap samples shall be representative of water quality throughout the distribution system taking all of the following factors into account:
(i) The number of persons served.
(ii) The different sources of water.
(iii) The different treatment methods employed by the ~~supplier~~ **supply**.
(iv) Seasonal variability.
Tap sampling under this subdivision is not required to be conducted at taps targeted for lead and copper sampling under R 325.10710a(1).
(b) Samples collected at the entry point or points to the distribution system shall be from locations that are representative of each source after treatment. If a ~~system~~ **supply** draws water from more than 1 source and the sources are combined before distribution, the ~~supplier~~ **supply** shall sample at an entry

point to the distribution system during periods of normal operating conditions, for example, when water is representative of all sources being used.
(3) The number of samples a ~~supplier~~ **supply** is required to collect are as follows:
(a) A ~~supplier~~ **supply** shall collect 2 tap samples for applicable water quality parameters during each monitoring period specified in subrules (4) to (7) of this rule from the following number of sites:

~~System~~ **Supply** Size (Number of People Served)	Number of Sites for Water Quality Parameters
More than 100,000	25
10,001 to 100,000	10
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
Fewer than 101	1

(b) Except as provided in subrule (5)(c) of this rule, a ~~supplier~~ **water supply** shall collect 2 samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in subrule (4) of this rule. During each monitoring period specified in subrules (5) to (7) of this rule, a ~~supplier~~ **supply** shall collect 1 sample for each applicable water quality parameter at each entry point to the distribution system.
(4) ~~The supplier of a~~ **A** large water ~~system~~ **supply** shall measure the applicable water quality parameters, at the locations specified in the following subdivisions at taps and at each entry point to the distribution system during each 6-month monitoring period specified in R 325.10710a(4)(a). ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** shall measure the applicable water quality parameters at the locations specified in the following subdivisions during each 6-month monitoring period, as specified in R 325.10710a(4)(a), that the ~~system~~ **supply** exceeds the lead or copper action level:
(a) At taps, ~~a sample for~~ **a water supply shall measure** each of the following:
(i) pH.
(ii) Alkalinity.
(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used.
(iv) Silica, when an inhibitor containing a silicate compound is used.
(v) Calcium.
(vi) Conductivity.
(vii) Water temperature.
(b) At each entry point to the distribution system, ~~a sample for~~ **a water supply shall measure** each of the applicable parameters that are listed in subdivision (a) of this subrule.
(5) ~~The supplier of a~~ **A** large water ~~system~~ **supply** that installs optimal corrosion control treatment under R 325.10604f(2)(d)(iii) shall measure the water quality parameters at the locations and frequencies specified in this subrule during each 6-month monitoring period specified in R 325.10710a(4)(b)(i). ~~The supplier of a~~ **A** small or medium size water ~~system who~~ **supply that** installs optimal corrosion control treatment shall measure the water quality parameters at the locations specified in the following subdivisions during each 6-month monitoring period, as specified in R 325.10710a(4)(b)(ii), that the ~~system~~ **supply** exceeds the lead or copper action level:
(a) At taps, 2 samples for each of the following:
(i) pH.
(ii) Alkalinity.

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used.
(iv) Silica, when an inhibitor containing a silicate compound is used.
(v) Calcium, when calcium carbonate stabilization is used as part of the corrosion control.
(b) Except as provided in subdivision (c) of this subrule, at each entry point to the distribution system, at least 1 sample ~~no less frequently than~~ **at least** every 2 weeks for each of the following:
(i) pH.
(ii) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity and a reading of the alkalinity concentration.
(iii) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used and a reading of the concentration of orthophosphate or silica, whichever is applicable.
(c) A ~~supplier of a~~ ground water ~~system~~ **supply** may limit entry point sampling described in subdivision (b) of this subrule to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the ~~supplier~~ **supply** shall monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Before the start of the monitoring under this subdivision, the ~~supplier~~ **supply** shall provide to the department written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.
(6) After the department specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment **under R 325.10604f(3)(f)**, ~~the supplier of a~~ large water ~~system~~ **supplies** shall measure the applicable water quality parameters under subrule (5) of this rule and determine compliance with the requirement of R 325.10604f(3)~~(f)~~**(g)** every 6 months with the first 6-month period to begin on ~~the date~~ **either January 1 or July 1, whichever comes first, after** the department specifies the optimal values **under R 325.10604f(3)(f)**. ~~The supplier of a~~ **A** small or medium size water ~~system~~ **supply** shall measure the applicable water quality parameters under subrule (5) of this rule during each 6-month period, as specified in this subrule that the ~~system~~ **supply** exceeds the lead or copper action level. For the small or medium size water ~~system~~ **supply** subject to a reduced monitoring frequency ~~pursuant to~~ **under** R 325.10710a(4)(d) when the action level is exceeded, the ~~end~~ **start** of the applicable 6-month period under this subrule shall coincide with the ~~end~~ **start** of the applicable monitoring period under R 325.10710a(4)(d). Compliance with department designated optimal water quality parameter values shall be determined as specified under R 325.10604f(3)~~(f)~~**(g)**.
(7) Reduced monitoring provisions are as follows:
(a) A ~~supplier~~ **supply** that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of 2 consecutive 6-month monitoring periods under subrule (6) of this rule shall continue monitoring applicable water quality parameters at the locations and frequencies specified in subrule (5) of this rule. The ~~supplier~~ **supply** may reduce the number of sites from which it monitors during each 6-month monitoring period to the following:

~~System~~ **Supply** Size (Number of People Served)	Reduced Number of Sites For Water Quality Parameters
More than 100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1

Fewer than 101	1

(b) Reduced monitoring frequency provisions are as follows:
(i) A ~~supplier~~ **water supply** that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the department **under R 325.10604f(3)(f)** during 3 consecutive years of monitoring specified in this subdivision may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in subdivision (a) of this subrule from every 6 months to annually. **This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of 6-month monitoring occurs.** A ~~supplier~~ **water supply** that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the department **under R 325.10604f(3)(f)** during 3 consecutive years of annual monitoring specified in this subdivision may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in subdivision (a) of this subrule from annually to every 3 years. **This sampling begins not later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.**
(ii) A ~~supplier~~ **water supply** may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in subdivision (a) of this subrule to every 3 years if it demonstrates during 2 consecutive monitoring periods that its tap water lead level at the ninetieth percentile is less than or equal to the PQL for lead specified in 40 C.F.R §141.89(a)(1)(ii), as adopted by reference in R 325.10605, that its tap water copper level at the ninetieth percentile is less than or equal to 0.65 mg/l for copper in R 325.10604f~~(3)(f)~~**(1)(c)**, and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the department **in R 325.10604f(3)(f)**. **Monitoring conducted every 3 years shall be done not later than every third calendar year.**
(c) A ~~supplier~~ **water supply** that conducts sampling annually shall collect the samples evenly throughout the year to reflect seasonal variability.
(d) ~~The supplier of a system~~ **A water supply** subject to the reduced monitoring frequency ~~who~~ **that** fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the department for more than 9 days in a 6-month period specified in R 325.10604f(3)~~(f)~~**(g)** shall resume distribution system tap water sampling under the number and frequency requirements specified in subrule (6) of this rule. The ~~supplier~~ **supply** may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in subdivision (a) of this subrule after it has completed 2 subsequent consecutive 6-month rounds of monitoring that meet the criteria of that subdivision or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either subdivision (b)(i) or (ii) of this subrule.
(8) ~~Additional monitoring provisions are as follows:~~
~~(a)~~ The results of monitoring conducted in addition to the minimum requirements of this rule shall be considered in determining the concentrations of water quality parameters.
~~(b) A supplier that fails to meet the lead action level based on tap samples collected under R 325.10710a shall offer to arrange for sampling the tap water of a customer who requests sampling. The supplier is not required to pay for collecting or analyzing the sample and is not required to collect and analyze the sample.~~
(9) Table 1 of this rule reads as follows:

Table 1 Summary of Monitoring Requirements for Water Quality Parameters – Lead, Copper, Corrosion Control[1]

Monitoring Period	Parameters[2]	Location	Frequency
Initial monitoring	pH, alkalinity, orthophosphate or silica3, calcium, conductivity, temperature	Taps and at entry point or points to distribution system	6 months
After installation of corrosion control	pH, alkalinity, orthophosphate or silica[3], calcium[4]	Taps	Every 6 months
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual[5]	Entry point or points to distribution system6	~~No less frequently than~~ **At least** every 2 weeks
After department specifies parameter values for optimal corrosion control	pH, alkalinity, orthophosphate or silica[3], calcium[4]	Taps	Every 6 months
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual[5]	Entry point or points to distribution system[6]	~~No less frequently than~~ **At least** every 2 weeks
Reduced monitoring	pH, alkalinity, orthophosphate or silica[3], calcium[4]	Taps	Every 6 months annually[7] or every 3 years[8] at a reduced number of sites
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted control), inhibitor dosage rate and inhibitor residual[5]	Entry point or points to distribution system[6]	~~No less frequently than~~ **At least** every 2 weeks

[1] Table is for illustrative purposes; consult the text of this part for precise regulatory requirements.

[2] S~~uppliers of s~~mall and medium size water ~~systems~~ **supplies** shall monitor for water quality parameters during monitoring periods in which the ~~system~~ **supply** exceeds the lead or copper action level.

[3] Orthophosphate shall be measured when an inhibitor containing a phosphate compound is used. Silica shall be measured when an inhibitor containing silicate compound is used.

[4] Calcium shall be measured when calcium carbonate stabilization is used as part of corrosion control.

[5] Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) shall be measured when an inhibitor is used.

[6] Ground water suppli~~er~~s may limit monitoring to representative locations throughout the system.

[7] ~~Suppliers~~ **Water supplies** may reduce frequency of monitoring for water quality parameters at the tap from every 6 months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

[8] ~~Suppliers~~ **Water supplies** may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. ~~Suppliers~~ **Water supplies** may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained ninetieth percentile lead levels less than or equal to 0.005 mg/l, ninetieth percentile copper levels less than or equal to 0.65 mg/l, and the range of water quality parameters designated by the department as representing optimal corrosion control during 2 consecutive 6-month monitoring periods.

R 325.10710c Monitoring requirements for lead and copper in source water.
Rule 710c. (1) Sample location, collection methods, and number of samples required for lead and copper monitoring in source water **of community and nontransient noncommunity water supplies** are as follows:
(a) ~~The supplier of a system~~ **A water supply** that fails to meet the lead or copper action level based on tap samples collected under R 325.10710a shall collect lead and copper source water samples under the following requirements regarding sample location, number of samples, and collection methods:
(i) ~~Suppliers of ground~~ **Ground**water ~~systems~~ **supplies** shall take a minimum of 1 sample at every entry point to the distribution system which is representative of each well after treatment, hereafter called a sampling point. The ~~supplier~~ **supply** shall take 1 sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.
(ii) S~~uppliers of s~~urface water ~~systems~~ **supplies** shall take a minimum of 1 sample at every entry point to the distribution system after the application of treatment or in the distribution system at a point which is representative of each source after treatment, hereafter called a sampling point. The ~~supplier~~ **supply** shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant. For purposes of this paragraph, surface water ~~systems~~ **supplies** include ~~systems~~ **water supplies** with a combination of surface and ground sources.
(iii) If a ~~system~~ **supply** draws water from more than 1 source and the sources are combined before distribution, the ~~supplier~~ **supply** shall sample at an entry point to the distribution system during periods of normal operating conditions, that is, when water is representative of all sources being used.
(b) If the results of sampling, taken to determine compliance with R 325.106**0**4f(4)(b)(iv), indicate an exceedance of the maximum permissible source water levels established by the department, then the department may require that 1 additional sample be collected as soon as possible after the initial sample was taken, but not more than 2 weeks later, at the same sampling point. If a department required

confirmation sample is taken for lead or copper, then the results of the initial and confirmation samples shall be averaged to determine compliance with the department specified maximum permissible levels. A sample value below the detection limit shall be considered to be zero. A value above the detection limit, but below the PQL, shall either be considered as the measured value or be considered 1/2 of the PQL.

(2) ~~The supplier of a system~~ **A water supply** that exceeds the lead or copper action level at the tap shall collect 1 source water sample from each entry point to the distribution system ~~within~~ **not later than** 6 months after ~~the action level is exceeded~~ **the end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the department has established an alternate monitoring period, the last day of that period**.

(3) A ~~supplier~~ **supply** that installs source water treatment under R 325.10604f(4)(a)(ii) shall collect an additional source water sample from each entry point to the distribution system during 2 consecutive 6-month monitoring periods by the deadline specified in R 325.10604f(4)(a)(iii).

(4) The following provisions apply to the monitoring frequency after the department specifies maximum permissible source water levels or determines that source water treatment is not needed:

(a) A ~~supplier~~ **supply** shall monitor to determine compliance with R 325.10604f(4)(b)(iv) at the frequency specified in the following paragraphs where the department specifies maximum permissible source water levels or determines that the ~~supplier~~ **supply** is not required to install source water treatment:

(i) A ~~supplier of~~ **water supply using** only groundwater shall collect samples once during the 3-year compliance period, as defined in R 325.10103, that is in effect when the applicable department determination under this subdivision is made. The ~~supplier~~ **supply** shall collect samples once during each subsequent compliance period. **Triennial samples shall be collected every third calendar year.**

(ii) A ~~supplier of~~ **water supply using** surface water or a combination of surface water and groundwater shall collect samples once during each year. The first annual monitoring period shall begin ~~on the date on~~ **during the year in** which the applicable department determination is made under this subdivision.

(b) A ~~supplier~~ **supply** is not required to conduct source water sampling for lead or copper if the ~~system~~ **supply** is in compliance with the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the ~~system~~ **supply** under subdivision (a)(i) and (ii) of this subrule.

(5) Reduced monitoring frequency provisions are as follows:

(a) A ~~supplier of~~ **water supply using** only groundwater may reduce the monitoring frequency for lead and copper in source water to once during each 9-year compliance cycle, as defined in R 325.10103 **provided that the samples are collected not later than every ninth calendar year and** if the ~~system~~ **supply** meets 1 of the following criteria:

(i) The ~~supplier~~ **supply** demonstrates that finished drinking water entering the distribution system has been maintained below the department specified maximum permissible lead and copper concentrations as required in R 325.10604f(4)(b)(iv) during not less than 3 consecutive compliance periods under subrule (4)(a) of this rule.

(ii) The department has determined that source water treatment is not needed and the ~~supplier~~ **supply** demonstrates that, during not less than 3 consecutive compliance periods in which sampling was conducted under subrule (4)(a) of this rule, the concentration of lead in source water was less than or equal to 0.005 mg/l and the concentration of copper in source water was less than or equal to 0.65 mg/l.

(b) ~~The supplier of~~ **A water supply using** surface water or a combination of surface water and groundwater may reduce the monitoring frequency in subrule (4)(a) of this rule to once during each 9-

year compliance cycle, as defined in R 325.10103 **provided that the samples are collected not later than every ninth calendar year and** if the ~~system~~ **supply** meets either of the following criteria:
(i) The ~~supplier~~ **supply** demonstrates that finished drinking water entering the distribution system has been maintained below the department specified maximum permissible lead and copper concentrations as required in R 325.10604f(4)(b)(iv) for not less than 3 consecutive years.
(ii) The department has determined that source water treatment is not needed and the ~~supplier~~ **supply** demonstrates that, during not less than 3 consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/l and the concentration of copper in source water was less than or equal to 0.65 mg/l.
(c) A ~~system~~ **water supply** that uses a new source of water is not eligible for reduced monitoring for lead or copper until concentrations in samples collected from the new source during 3 consecutive monitoring periods are below the department specified maximum permissible lead and copper concentrations as required in R 325.10604f(4)(a)(iv).

R 325.10710d Reporting requirements for lead, copper, and corrosion control.
Rule 710d. ~~A supplier~~ **This rule applies to all community and nontransient noncommunity water supplies. These public water supplies are also considered "water supplies" or "supplies" in this rule. Supplies** shall report all of the following information to the department ~~under this rule~~:
(a) Reporting provisions for tap water monitoring for lead and copper and for water quality parameter monitoring are as follows:
(i) Except as provided in subparagraph (G) of this paragraph, a ~~supplier~~ **water supply** shall report the information specified in this paragraph for all tap water samples specified in R 325.10710a and for all water quality parameter samples specified in R 325.10710b within the first 10 days after the end of each applicable monitoring period specified in R 325.10710a and R 325.10710b, for example, every 6 months, annually, every 3 years, or every 9 years~~:~~**. For monitoring periods with a duration less than 6 months, the end of the monitoring period is the last date samples can be collected during that period as specified in R 325.10710a to R 325.10710b. All of the following apply:**
(A) The results of all tap samples for lead and copper, including the location of each site and the criteria in R 325.10710a(1)(c), (d), (e), (f), or (g) used to select the site for the system's sampling pool.
(B) Documentation for each tap water lead or copper sample for which the ~~supplier~~ **water supply** requests invalidation ~~pursuant to~~ **under** R 325.10710a(6)(b).
(C)The ninetieth percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, calculated in compliance with the provisions of R 325.10604f(1)(c)(i), unless the department calculates the system's ninetieth percentile lead and copper levels under subdivision (h) of this subrule.
(D) With the exception of initial tap sampling conducted under R 325.10710a(4)(a), a ~~supplier~~ **water supply** shall designate sites not sampled during previous monitoring periods and include an explanation of why sampling sites have changed.
(E) The results of all tap samples for pH and, where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under R 325.10710b(b) to (e).
(F) The results of all samples collected at the entry point or points to the distribution system for applicable water quality parameters under R 325.10710b(b) to (e).
(G) A ~~supplier~~ **water supply** shall report the results of all water quality parameter samples collected under R 325.10710b(5) ~~through~~ **to** (8) during each 6-month monitoring period specified in R 325.10710b(6) within the first 10 days following the end of the monitoring period, unless the department has specified a more frequent reporting requirement.

(ii) For a nontransient noncommunity water system, or a community water system meeting the criteria of R 325.10410~~(8)(a) and (b)~~**(3)(g)**, that does not have enough taps that can provide first draw samples, the ~~supplier~~ **supply** shall do either of the following as appropriate:
(A) Provide written documentation to the department identifying standing times and locations for enough non-first draw samples to make up its sampling pool under R 325.10710a(2)(e) by the start of the first applicable monitoring period under R 325.10710a(4) that commences after April 11, 2000, unless the department has waived prior department approval of non-first draw sample sites selected by the ~~supplier pursuant to~~ **supply under** R 325.10710a(2)(e).
(B) If the department has waived prior approval of non-first draw sample sites selected by the ~~supplier~~ **supply**, identify, in writing, each site that did not meet the 6-hour minimum standing time and the length of standing time for that particular substitute sample collected ~~pursuant to~~ **under** R 325.10710a(2)(e) and include this information with the lead and copper tap sample results submitted ~~pursuant to~~ **under** subdivision (a)(i) of this subrule.
(iii) ~~Not later than 60 days after the~~ **At a time specified by the department, or if no specific time is designated by the department, then as early as possible prior to the** addition of a new source or a **long-term** change in water treatment, ~~unless the department requires earlier notification, a supplier~~ **a water supply** considered to have optimized corrosion control under R 325.10604f(2)(b), a system subject to reduced monitoring ~~pursuant to~~ **under** R 325.10710a(4)(d), or a system subject to a monitoring waiver ~~pursuant to~~ **under** R 325.10710a(7) shall ~~send~~ **submit** written documentation to the department describing the change **or addition**. ~~If prior department approval of the treatment change or new source is not required, suppliers are encouraged to provide the notification to the department beforehand to minimize the risk the treatment change or new source will adversely affect optimal corrosion control.~~ **The department shall review and approve the addition of a new source or long-term change in treatment before it is implemented by the water supply. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants (for example, alum to ferric chloride), and switching corrosion inhibitor products (for example, orthophosphate to blended phosphate). Long- term changes can include dose changes to existing chemicals if the supply is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.**
(iv) ~~The supplier of a~~ **A** small water ~~system~~ **supply** applying for a monitoring waiver under R 325.10710a(7), or subject to a waiver granted ~~pursuant to~~ **under** R 325.10710a(7)(c), shall provide all of the following information to the department, in writing, by the specified deadline:
(A) By the start of the first applicable monitoring period in R 325.10710a(4), ~~the supplier of~~ a small water ~~system~~ **supply** applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of R 325.10710a(7)(a) and (b).
(B) Not later than 9 years after the monitoring previously conducted ~~pursuant to~~ **under** R 325.10710a(7)(b) or R 325.10710a(7)(d)(i), ~~the supplier of~~ a small water ~~system~~ **supply** desiring to maintain its monitoring waiver shall provide the information required by R 325.10710a(7)(d)(i) and (ii).
(C) Not later than 60 days after ~~the supplier~~ **it** becomes aware that the system is no longer free of lead containing or copper containing material, or both, as appropriate, ~~the supplier of~~ a small water ~~system~~ **supply** with a monitoring waiver shall provide written notification to the department, setting forth the circumstances resulting in the lead containing or copper containing materials, or both, being introduced into the system and what corrective action, if any, the ~~supplier~~ **supply** plans to remove these materials.
(v) ~~For each~~ **Each** ground water ~~system~~ **supply** that limits water quality parameter monitoring to a subset of entry points under R 325.10710b(5)(c), the ~~supplier~~ **supply** shall provide, by the

commencement of the monitoring, written correspondence to the department that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.
(b) Source water monitoring provisions are as follows:
(i) A ~~supplier~~ **water supply** shall report the sampling results for all source water samples collected under R 325.10710c within the first 10 days after the end of each source water monitoring period, for example, annually, per compliance period, or per compliance cycle, specified in R 325.10710c.
(ii) With the exception of the first round of source water sampling conducted under R 325.10710c(2), a ~~supplier~~ **supply** shall specify sites that were not sampled during previous monitoring periods and include an explanation of why the sampling points have changed.
(c) A ~~supplier~~ **supply** shall report the following corrosion control treatment information to the department by the applicable dates specified in R 325.10604f(2):
(i) For a ~~supplier~~ **supply** that has already optimized corrosion control, the information required in R 325.10604f(2)(b)(ii) or (iii).
(ii) For a ~~supplier~~ **supply** required to optimize corrosion control, the ~~supplier's~~ **supply's** recommendation regarding optimal corrosion control treatment under R 325.10604f(3)(a).
(iii) For a ~~supplier~~ **supply** that is required to evaluate the effectiveness of corrosion control treatments under R 325.10604f(3)(c), the information required by R 325.10604f(3)(c).
(iv) For a ~~supplier~~ **supply** required to install optimal corrosion control designated by the department under R 325.10604f(3)(d), documentation certifying that the ~~supplier~~ **supply** has completed installing the optimal corrosion control.
(d) A ~~supplier~~ **water supply** shall provide the following source water treatment information to the department by the applicable dates specified in R 325.10604f(4):
(i) If required under R 325.10604f(4)(b)(i), the ~~supplier's~~ **supply's** recommendation regarding source water treatment.
(ii) For a ~~supplier~~ **supply** required to install source water treatment under R 325.10604f(4)(b)(ii), documentation certifying that the ~~supplier~~ **supply** has completed installing the treatment designated by the department within 24 months after the department designated the treatment.
(e) A ~~supplier~~ **water supply** shall report all of the following lead service line replacement information to the department to demonstrate compliance with the requirements of R 325.10604f(5):
(i) ~~Within~~ **Not later than** 12 months after **the end of a monitoring period in which** ~~a system~~ **a supply** exceeds the lead action level in sampling referred to in R 325.10604f(5)(a), the ~~supplier shall submit a written report~~ **supply shall submit written documentation** to the department ~~that demonstrates the supplier has conducted a~~ **of the** materials evaluation~~, including the evaluation specified~~ **conducted as required** in R 325.10710a(1), ~~to~~ identify the initial number of lead service lines in its distribution system **at the time the supply exceeds the lead action level,** and ~~shall~~ provide the ~~department with the supplier's~~ **supply's** schedule for **annually** replacing ~~annually~~ not less than 7% of the initial number of lead service lines in its distribution system.
(ii) ~~Within~~ **Not later than** 12 months after **the end of a monitoring period in which** a ~~system~~ **supply** exceeds the lead action level in sampling referred to in R 325.10604f(5)(a), and every 12 months thereafter, the ~~supplier~~ **supply** shall submit a written report to the department that demonstrates the ~~supplier~~ **supply** has complied with either of the following requirements:
(A) Replaced, in the previous 12 months, not less than 7% of the initial lead service lines, or a greater number of lines specified by the department under R 325.10604f (4), in its distribution system.
(B) Conducted sampling demonstrating that the lead concentration in all service line samples from an individual line or lines, taken under R 325.10710a(2)(c), is less than or equal to 0.015 mg/l. In those cases, the total number of lines that were replaced or that meet the criteria specified in R

325.10604f(5)(c), or both, shall equal not less than 7% of the initial number of lead lines identified under subdivision ~~(a) of this rule~~ **(i) of this subrule** or the percentage specified by the department under R 325.10604f~~(4)~~**(5)(e)**.
(iii) The annual documentation submitted to the department under paragraph (ii) of this subdivision, which shall contain all of the following information:
(A) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule.
(B) The number and location of each lead service line replaced during the previous year of the system's replacement schedule.
(C) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.
(iv) At the request of the department, a ~~supplier~~ **supply** that collects lead service line samples following partial lead service line replacement required by R 325.10604f(5) shall report the results to the department as specified in R 325.10734(1). ~~Suppliers~~ **Supplies** shall also report additional information as specified by the department under R 325.11505(2) to verify that all partial lead service line replacement activities have taken place.
(f) A ~~supplier~~ **water supply** shall provide the following public education reporting information to the department:
(i) ~~If a system~~ **A water supply that** is subject to the public education requirements in R 325.10410~~, the supplier~~ shall, within 10 days after the end of each period in which the ~~supplier~~ **supply** is required to perform public education tasks under R 325.10410~~(2)~~**(b)**, send written documentation to the department that contains both of the following:
(A) A demonstration that the ~~supplier~~ **supply** has delivered the public education materials that meet the content requirements in R 325.10410~~(1)~~**(2)** and the delivery requirements in R 325.10410~~(2) and~~ (3).
(B) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the ~~supplier~~ **supply** delivered public education materials during the period in which the ~~supplier~~ **supply** was required to perform public education tasks.
(ii) Unless required by the department, a ~~supplier~~ **supply** that previously has submitted the information required by paragraph (i)(B) of this subdivision need not resubmit the information required by paragraph (i)(B) of this subdivision, if there have been no changes in the distribution list and the ~~supplier~~ **supply** certifies that the public education materials were distributed to the same list submitted previously.
(iii) Not later than 3 months following the end of the monitoring period, each supply shall mail a sample copy of the consumer notification of tap results to the department along with a certification that the notification has been distributed consistent with the requirements of R 325.10410(3).
(g) A ~~supplier~~ **water supply** that collects sampling data in addition to that required by this part shall report the results to the department within the first 10 days following the end of the applicable monitoring period specified in R 325.10710a, R 325.10710b, and R 325.10710c during which the samples are collected.
(h) A ~~supplier~~ **water supply** is not required to report the ninetieth percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by subrule (1)(a)(i)(D) of this rule if ~~both~~ **all** of the following provisions are satisfied:
(i) The department has previously notified the ~~supplier~~ **supply** that it will calculate the ~~system's~~ **supply's** ninetieth percentile lead and copper concentrations, based on the lead and copper tap results submitted ~~pursuant to~~ **under** paragraph (ii)(A) of this subdivision, and has specified a date before the end of the

applicable monitoring period by which the ~~supplier~~ **supply** shall provide the results of lead and copper tap water samples.
(ii) The ~~supplier~~ **supply** has provided the following information to the department by the date specified in paragraph (i) of this subdivision:
(A) The results of all tap samples for lead and copper including the location of each site and the criteria under R 325.10710a(1)(c), (d), (e), (f), or (g), under which the site was selected for the system's sampling pool, ~~pursuant to~~ **under** subdivision (a)(i) of this subrule.
(B) An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed.
(iii) The department has provided the results of the ninetieth percentile lead and copper calculations, in writing, to the ~~supplier~~ **supply** before the end of the monitoring period.

R 325.10717b Special monitoring.
Rule 717b. (1) ~~Unregulated contaminant monitoring requirements are contained in 40 CFR §141.40. The department adopts by reference 40 CFR §141.40 (October 29, 2002). The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).~~
~~(2)~~ All of the following provisions apply to sodium monitoring:
(a) A ~~supplier of water for a~~ community water ~~system~~ **supply** shall collect and analyze 1 sample per plant at the entry point to the distribution system to determine sodium concentration levels. **A community water supply is also considered "water supply" or "supply" in this rule.** Samples shall be collected and analyzed annually for a ~~system~~ **supply** that utilizes surface water sources in whole or in part and ~~not less than~~ **at least** once every 3 years for a ~~system~~ **supply** that utilizes solely ground water sources. The minimum number of samples required to be taken by the ~~system~~ **supply** shall be based on the number of treatment plants used by the ~~system~~ **supply**, except that multiple wells drawing raw water from a single aquifer may be considered 1 treatment plant for determining the minimum number of samples.
(b) The ~~supplier of water~~ **supply** shall report to the department the results of the analyses for sodium as required in R 325.10734(1). If the department requires more than annual sampling, then the ~~supplier~~ **supply** shall report the average sodium concentration as required in R 325.10734(1) after taking the last sample used for the annual average.
(c) The ~~supplier~~ **supply** shall notify the local health department of the sodium levels within 3 months in writing. The ~~supplier~~ **supply** shall send a copy of the written notice to the state within 10 days of its issuance. The ~~supplier~~ **supply** is not required to send written notice to the local health department when the department provides the notice instead of the ~~supplier~~ **supply**.
~~(3)~~ **(2)** An analysis for a contaminant or parameter listed in this rule shall be conducted only by laboratories certified to conduct that analysis under part 27 of these rules or approved by the United States EPA.

R 325.10717c ~~VOC; reporting.~~ **Rescinded.**
Rule 717c. ~~The owner of a system who is required to monitor under this part and who uses a department certified or provisionally certified laboratory other than the department's laboratory shall send a copy of the results to the department within 30 days of the receipt of the results.~~

R 325.10719e Disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors; monitoring requirements.

Rule 719e. (1) This rule applies as set forth in R 325.10610**b**. All of the following provisions are general monitoring requirements:
(a) ~~Suppliers~~ **Supplies** shall take all samples during normal operating conditions.
(b) ~~Suppliers~~ **Supplies** may consider multiple wells drawing water from a single aquifer as 1 treatment plant for determining the minimum number of TTHM and HAA5 samples required, with department approval. This approval will be granted in writing if the ~~supplier~~ **supply** can demonstrate that the finished water quality characteristic of all entry points to the distribution system drawing from the identified aquifer, whether served by multiple wells or a single well, are similar and are expected to react alike in terms of the formation of disinfection byproducts. To demonstrate this, the ~~supplier~~ **supply** shall arrange for a study to be prepared by an individual or firm considered qualified to perform this work, such as a hydrogeologist, geologist, or engineer. All of the following provisions apply to the study:
(i) The study shall consider well construction and geology, including all of the following:
(A) Well locations marked on a topographical map.
(B) Well depths.
(C) Well logs showing geological strata, identifying water production zones, screened or slotted areas, and grouting of the annular space.
(D) Static water levels.
(E) Aquifer studies and maps.
(F) Treatment applied.
(ii) The study shall consider water characteristics and chemistry of each well including all of the following:
(A) Field pH.
(B) Field temperatures.
(C) Specific conductivity.
(D) Total organic carbon.
(E) Analyses of common ions with a calculated cation/ion balance, such as calcium, magnesium, iron, manganese, sodium sulfate, alkalinity, and chloride.
(iii) The department may require disinfection byproducts monitoring at various entry points to the distribution system to determine if the study conclusions are correct.
(iv) Results of disinfection byproducts monitoring may be used instead of the study if all entry points to the distribution system drawing from the identified aquifer show that the levels are below the MCLs.
(c) Failure to monitor in accordance with the monitoring plan required under subrule (5) of this rule is a monitoring violation.
(d) Failure to monitor will be treated as a violation for the entire period covered by the annual average where compliance is based on a running annual average of monthly or quarterly samples or averages and the ~~supplier's~~ **supply's** failure to monitor makes it impossible to determine compliance with MCLs or MRDLs.
(e) ~~Suppliers~~ **Supplies** shall use only data collected under this rule to qualify for reduced monitoring.
(2) All of the following provisions are monitoring requirements for disinfection byproducts:
(a) All of the following provisions are TTHM and HAA5 monitoring requirements:
(i) ~~Suppliers~~ **Supplies** shall conduct routine monitoring at the frequency indicated in table 1 of this rule:

Table 1 Routine monitoring frequency for TTHM and HAA5

Type of ~~system~~ supply	*Minimum monitoring frequency*	*Sample location in the distribution system*

Type of ~~system~~ supply	*Minimum monitoring frequency*	*Sample location in the distribution system*
Subpart H ~~system~~ **supply** serving 10,000 or more people.	4 water samples per quarter per treatment plant.	Not less than 25% of all samples collected each quarter at locations representing maximum residence time. Remaining samples taken at locations representative of at least average residence time in the distribution system and representing the entire distribution system, taking into account the number of persons served, different sources of water, and different treatment methods[1].
Subpart H ~~system~~ **supply** serving from 500 to 9,999 people.	1 water sample per quarter per treatment plant.	Locations representing maximum residence time[1].
Subpart H ~~system~~ **supply** serving fewer than 500 people.	1 sample per year per treatment plant during month of warmest water temperature.	Locations representing maximum residence time[1]. If the sample (or average of annual samples, if more than 1 sample is taken) exceeds the MCL, the ~~system~~ **supply** shall increase monitoring to 1 sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until the ~~system~~ **supply** meets criteria in paragraph (iv) of this subdivision.
~~System~~ **Supply** using only ground water not under direct influence of surface water using chemical disinfectant and serving 10,000 or more people.	1 water sample per quarter per treatment plant[2].	Locations representing maximum residence time[1].
~~System~~ **Supply** using only ground water not under direct influence of surface water using chemical disinfectant and serving fewer than 10,000 people.	1 sample per year per treatment plant[2] during month of warmest water temperature.	Locations representing maximum residence time[1]. If the sample (or average of annual samples, if more than 1 sample is taken) exceeds the MCL, the ~~system~~ **supply** shall increase monitoring to 1 sample per treatment plant per quarter, taken at a point reflecting the maximum residence time in the distribution system, until the ~~system~~ **supply** meets criteria in paragraph (iv) of this subdivision.

[1] If a ~~supplier~~ **supply** elects to sample more frequently than the minimum required, not less than 25% of all samples collected each quarter, including those taken in excess of the required frequency, shall be taken at locations that represent the maximum residence time of the water in the distribution system.

The remaining samples shall be taken at locations representative of at least average residence time in the distribution system.

[2] Multiple wells drawing water from a single aquifer may be considered 1 treatment plant for determining the minimum number of samples required, with department approval.

(ii) ~~Suppliers~~ **Supplies** may reduce monitoring, except as otherwise provided, under table 2 of this rule:

Table 2 Reduced monitoring frequency for TTHM and HAA5

If the ~~system~~ **supply** is a...	The ~~supplier~~ **supply** may reduce monitoring if the ~~supplier~~ **supply** has monitored at least 1 year and the...	To this level
Subpart H ~~system~~ **supply** serving 10,000 or more people which has a source water annual average TOC level, before any treatment, that is less than or equal to 4.0 mg/l.	TTHM annual average is less than or equal to 0.040 mg/l and HAA5 annual average is less than or equal to 0.030 mg/l.	1 sample per treatment plant per quarter at distribution system location reflecting maximum residence time.
Subpart H ~~system~~ **supply** serving from 500 to 9,999 people which has a source water annual average TOC level, before any treatment, that is less than or equal to 4.0 mg/l.	TTHM annual average is less than or equal to 0.040 mg/l and HAA5 annual average is less than or equal to 0.030 mg/l.	1 sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature. Note: any subpart H ~~system~~ **supply** serving fewer than 500 people may not reduce its monitoring to less than 1 sample per treatment plant per year.
~~System~~ **Supplies** using only ground water not under direct influence of surface water using chemical disinfectant and serving 10,000 or more people.	TTHM annual average is less than or equal to 0.040 mg/l and HAA5 annual average is less than or equal to 0.030 mg/l.	1 sample per treatment plant per year at distribution system location reflecting maximum residence time during month of warmest water temperature.

If the ~~system~~ **supply** is a...	The ~~supplier~~ **supply** may reduce monitoring if the ~~supplier~~ **supply** has monitored at least 1 year and the...	To this level
~~System~~ **supply** using only ground water not under direct influence of surface water using chemical disinfectant and serving fewer than 10,000 people.	TTHM annual average is less than or equal to 0.040 mg/l and HAA5 annual average is less than or equal to 0.030 mg/l for 2 consecutive years, or TTHM annual average is less than or equal to 0.020 mg/l and HAA5 annual average is less than or equal to 0.015 mg/l for 1 year.	1 sample per treatment plant per 3 year monitoring cycle at distribution system location reflecting maximum residence time during month of warmest water temperature, with the 3-year cycle beginning on January 1 following quarter in which ~~system~~ **supply** qualifies for reduced monitoring.

(iii) **To qualify for reduced monitoring for TTHM and HAA5 under paragraph (ii) of this subdivision, subpart H supplies not subject to disinfection byproduct precursor monitoring under subrule (4) of this rule shall take monthly TOC samples every 30 days at a location before treatment. In addition to meeting other criteria for reduced monitoring in paragraph (ii) of this subdivision, the source water TOC running annual average shall be less than or equal to 4.0 mg/L, based on the most recent 4 quarters of monitoring, on a continuing basis at each treatment plant to reduce or remain on reduced monitoring for TTHM and HAA5. Once qualified for reduced monitoring for TTHM and HAA5 under paragraph (ii) of this subdivision, a supply may reduce source water TOC monitoring to quarterly TOC samples taken every 90 days at a location before treatment.**

(iv) ~~Suppliers of systems~~ **Supplies** on a reduced monitoring schedule may remain on that reduced schedule as long as the average of all samples taken in the year, for ~~systems~~ **supplies** monitoring quarterly, or the result of the sample, for ~~systems~~ **supplies** monitoring not more frequently than annually, is not more than 0.060 mg/l and 0.045 mg/l for TTHM and HAA5, respectively. ~~Suppliers of systems~~ **Supplies** that do not meet these levels shall resume monitoring at the frequency identified in the "minimum monitoring frequency" column of table 1 of this rule, in the quarter immediately following the monitoring period in which the ~~system~~ **supply** exceeds 0.060 mg/l ~~and~~ **or** 0.045 mg/l for TTHM ~~and~~ **or** HAA5, respectively. For ~~systems~~ **supplies** using only groundwater not under the direct influence of surface water and serving fewer than 10,000 people, if either the TTHM annual average is greater than 0.080 mg/l or the HAA5 annual average is greater than 0.060 mg/l, the ~~supplier~~ **supply** shall increase monitoring to that identified in the "sample location in the distribution system" column of table 1 of this rule in the quarter immediately following the monitoring period in which the ~~system~~ **supply** exceeds 0.080 mg/l or 0.060 mg/l for TTHM or HAA5, respectively.

~~(iv)~~ **(v)** ~~Suppliers of systems~~ **Supplies** on increased monitoring may return to routine monitoring if, after at least 1 year of monitoring, the TTHM annual average is less than or equal to 0.060 mg/l and the HAA5 annual average is less than or equal to 0.045 mg/l.

(b) ~~Suppliers of community~~ **Community** and nontransient noncommunity water ~~systems~~ **supplies** adding chlorine dioxide shall conduct monitoring for chlorite under all of the following provisions:

(i) All of the following provisions are routine monitoring requirements:

(A) Each day, suppli~~er~~s shall take samples at the entrance to the distribution system. For any daily sample that exceeds the chlorite MCL, the ~~supplier~~ **supply** shall take additional samples in the distribution system the following day at the locations required by paragraph (ii) of this subdivision, in addition to the sample required at the entrance to the distribution system.
(B) Each month, suppli~~er~~s shall take a 3-sample set in the distribution system. The ~~supplier~~ **supply** shall take 1 sample at each of the following locations:
(1) Near the first customer.
(2) At a location representative of average residence time.
(3) At a location reflecting maximum residence in the distribution system.
Any additional routine sampling shall be conducted in the same manner, as 3-sample sets, at the specified locations. The ~~supplier~~ **supply** may use the results of additional monitoring conducted under paragraph (ii) of this subdivision to meet the requirement for monitoring in this paragraph.
(ii) On each day following a routine sample monitoring result that exceeds the chlorite MCL at the entrance to the distribution system, the ~~supplier~~ **supply** shall take 3 chlorite distribution system samples at each of the following locations:
(A) As close to the first customer as possible.
(B) In a location representative of average residence time.
(C) As close to the end of the distribution system as possible, reflecting maximum residence time in the distribution system.
(iii) Chlorite monitoring at the entrance to the distribution system required by paragraph (i)(A) of this subdivision may not be reduced. Chlorite monitoring in the distribution system required by paragraph (i)(B) of this subdivision may be reduced to 1 3-sample set per quarter after 1 year of monitoring where no individual chlorite sample taken in the distribution system under paragraph (i)(B) of this subdivision has exceeded the chlorite MCL and the ~~supplier~~ **supply** has not been required to conduct monitoring under paragraph (ii) of this subdivision. The ~~system~~ **supply** may remain on the reduced monitoring schedule until either any of the 3 individual chlorite samples taken quarterly in the distribution system under paragraph (i)(B) of this subdivision exceeds the chlorite MCL or the ~~supplier~~ **supply** is required to conduct monitoring under paragraph (ii) of this subdivision, at which time the ~~supplier~~ **supply** shall revert to routine monitoring.
(c) **Supplies using ozone shall monitor for bromate as follows:**
(i) ~~Suppliers~~ **Supplies** using ozone shall monitor for bromate by taking 1 sample per month at the entrance to the distribution system for each treatment plant in the ~~system~~ **supply** using ozone. ~~Monitoring may not be reduced.~~
(ii) A supply required to monitor for bromate may reduce monitoring from monthly to quarterly, if the supply's running annual average bromate concentration is less than or equal to 0.0025 mg/L based on monthly bromate measurements under paragraph (i) of this subdivision for the most recent 4 quarters. The supply may remain on reduced monitoring as long as the running annual average of quarterly bromate sample are less than or equal to 0.0025 mg/L. If the running annual average bromate concentration is greater than 0.0025 mg/L, the supply shall resume routine monitoring required by paragraph (i) of this subdivision.
(3) Both of the following provisions are monitoring requirements for disinfectant residuals:
(a) ~~Suppliers of community~~ **Community** and nontransient noncommunity water ~~systems~~ **supplies** adding chlorine or chloramines shall measure the residual disinfectant level in the distribution system at the same point in the distribution system and at the same time as total coliforms are sampled, as specified in ~~R 325.10705 and R 325.10706~~ **R 325.10704 to R 325.10709**. Monitoring may not be reduced.
(b) All of the following provisions are chlorine dioxide monitoring requirements:

(i)~~ Suppliers of community~~ **Community**, nontransient noncommunity, and transient noncommunity water ~~systems~~ **supplies** that use chlorine dioxide shall monitor for chlorine dioxide by taking daily samples at the entrance to the distribution system. For any daily sample that exceeds the MRDL, the ~~supplier~~ **supply** shall take samples in the distribution system the following day at the locations required by paragraph (ii) of this subdivision, in addition to the sample required at the entrance to the distribution system.
(ii) On each day following a routine sample monitoring result that exceeds the MRDL, the ~~supplier~~ **supply** is required to take 3 chlorine dioxide distribution system samples. If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfection addition points after the entrance to the distribution system, that is, no booster chlorination, the ~~supplier~~ **supply** shall take 3 samples as close to the first customer as possible, at intervals of at least 6 hours. If chlorine is used to maintain a disinfectant residual in the distribution system and there are 1 or more disinfection addition points after the entrance to the distribution system, that is, booster chlorination, the ~~supplier~~ **supply** shall take 1 sample at each of the following locations:
(A) As close to the first customer as possible.
(B) In a location representative of average residence time.
(C) As close to the end of the distribution system as possible, reflecting maximum residence time in the distribution system.
(iii) Chlorine dioxide monitoring may not be reduced.
(4) Monitoring requirements for disinfection byproduct precursors (DBPP) are as follows:
(a) ~~Suppliers of subpart H systems~~ **Subpart H supplies** using conventional filtration shall monitor each treatment plant for TOC not later than the point of combined filter effluent turbidity monitoring and representative of the treated water. ~~Suppliers~~ **Supplies** shall also monitor for TOC in the source water before any treatment at the same time as monitoring for TOC in the treated water. These samples (source water and treated water) are referred to as "paired samples." At the same time as the source water sample is taken, supplie~~r~~s shall monitor for alkalinity in the source water before any treatment. ~~Suppliers~~ **Supplies** shall take 1 paired sample and 1 source water alkalinity sample per month per plant at a time representative of normal operating conditions and influent water quality.
(b) ~~Suppliers of subpart H systems~~ **Subpart H supplies** with an average treated water TOC of less than 2.0 mg/l for 2 consecutive years, or less than 1.0 mg/l for 1 year, may reduce monitoring for both TOC and alkalinity to 1 paired sample and 1 source water alkalinity sample per plant per quarter. The ~~supplier~~ **supply** shall revert to routine monitoring in the month following the quarter when the annual average treated water TOC is greater than or equal to 2.0 mg/l.
(5) ~~Suppliers~~ **Supplies** subject to this rule shall develop and implement a monitoring plan. The ~~supplier~~ **supply** shall maintain the plan and make it available for inspection by the department and the general public not more than 30 days following the applicable compliance dates in subrule (1) of this rule. ~~Suppliers of subpart H systems~~ **Subpart H supplies** serving more than 3,300 people shall submit a copy of the monitoring plan to the department not later than the date of the first report required under R 325.10719f. At a minimum, the plan shall include all of the following elements:
(a) Specific locations and schedules for collecting samples for parameters included in ~~R 325.10610, R 325.10610a,~~ R 325.10610b, R 325.10610c, or this rule.
(b) The method the ~~supplier~~ **supply** will use to calculate compliance with MCLs, MRDLs, and treatment techniques.
(c) If approved for monitoring as a consecutive~~ system~~ **supply**, or if providing water to a consecutive ~~system~~ **supply**, under ~~the provisions~~ of R 325.10733, the sampling plan shall reflect the entire distribution system.

R 325.10719g Initial distribution system evaluations.
Rule 719g. (1) This rule applies to a community water supply that uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light. This rule applies to a nontransient noncommunity water supply that serves not fewer than 10,000 people and uses a primary or residual disinfectant other than ultraviolet light or delivers water that has been treated with a primary or residual disinfectant other than ultraviolet light.
(2) Title 40 CFR Part 141 Subpart U, being 40 CFR 141.600 to 40 CFR 141.605, (2008), which pertains to Initial Distribution System Evaluations, is adopted by reference. The adopted material is contained in Title 40 CFR Parts 136 to 149 which is available for purchase for $64.00 at the time of adoption of these rules from the superintendent of documents at the address in R 325.10116(b). The adopted material is available for inspection, or a copy is available at no cost from the offices of the department at the address in R 325.10116(a). Both of the following apply to the adopted material:
(a) Subpart U consists of all of the following sections of Title 40 CFR Part 141:
(i) 40 CFR 141.600 General requirements.
(ii) 40 CFR 141.601 Standard monitoring.
(iii) 40 CFR 141.602 System specific studies.
(iv) 40 CFR 141.603 40/30 certification.
(v) 40 CFR 141.604 Very small system waivers.
(vi) 40 CFR 141.605 Subpart V compliance monitoring location recommendations.
(b) For the purposes of this rule, the following substitutions shall be made for terms used in the portions of 40 CFR 141 listed in subdivision (a) of this subrule.
(i) "[Sec.]141.29" means R 325.10733.
(ii) "[Sec.]141.64" means R 325.10610.
(iii) "[Sec.]141.131" means using analytical methods for disinfection byproducts in R 325.10605 and having analyzed in a laboratory meeting the requirements of R 325.12707.
(iv) "[Sec.]141.132" means R 325.10719e.
(v) "EPA" means the U.S. Environmental Protection Agency.
(vi) "State" means department as defined in R 325.10104(a).
(vii) "Subpart L" means R 325.10610 to R 325.10610c and R 325.10719e to R 325.10719f.
(viii) "Subpart V" means R 325.10610d and R 325.10719h to R 325.10719n.

R 325.10719h Disinfection byproducts; routine monitoring.
Rule 719h. (1) A community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d and that submitted an IDSE report shall begin monitoring at the locations and months the supply has recommended in the IDSE report submitted under 40 CFR 141.605 as adopted by reference in R 325.10719g following the schedule in R 325.10610d(3), unless the department requires other locations or additional locations after its review. If the supply submitted a 40/30 certification under 40 CFR 141.603 as adopted by reference in R 325.10719g or the supply qualified for a very small system waiver under 40 CFR 141.604 as adopted by reference in R 325.10719g or the supply is a nontransient noncommunity water supply serving less than 10,000, then the supply shall monitor at the location or locations and dates identified in the monitoring plan in R 325.10719e(5), updated as required by R 325.10719i. These community and noncommunity water supplies are also considered "water supplies" or "supplies" in this rule and R 325.10719i to R 325.10719n.

(2) The supply shall monitor at least the number of locations identified in the following table:

Source Water Type	Population size category	Monitoring Frequency [1]	Distribution system monitoring locations total per monitoring period [2]
Subpart H	less than 500	per year	2
Subpart H	500 to 3,300	per quarter	2
Subpart H	3,301 to 9,999	per quarter	2
Subpart H	10,000 to 49,999	per quarter	4
Subpart H	50,000 to 249,999	per quarter	8
Subpart H	250,000 to 999,999	per quarter	12
Subpart H	1,000,000 to 4,999,999	per quarter	16
Subpart H	greater than or equal to 5,000,000	per quarter	20
Groundwater	less than 500	per year	2
Groundwater	500 to 9,999	per year	2
Groundwater	10,000 to 99,999	per quarter	4
Groundwater	100,000 to 499,999	per quarter	6
Groundwater	greater than or equal to 500,000	per quarter	8

[1] All supplies shall monitor during month of highest DBP concentrations.

[2] Supplies on quarterly monitoring shall take dual sample sets every 90 days at each monitoring location, except for subpart H supplies serving 500 to 3,300. Groundwater supplies serving 500-9,999 on annual monitoring shall take dual sample sets at each monitoring location. All other supplies on annual monitoring and subpart H supplies serving 500 to 3,300 are required to take individual TTHM and HAA5 samples (instead of a dual sample set) at the locations with the highest TTHM and HAA5 concentrations, respectively. For supplies serving fewer than 500 people, only 1 location with a dual sample set per monitoring period is needed if the highest TTHM and HAA5 concentrations occur at the same location and month.

(3) If the supply is an undisinfected supply that begins using a disinfectant other than UV light after the dates in 40 CFR 141 Subpart U, as adopted by reference in R 325.10719g, for complying with the Initial Distribution System Evaluation requirements, the supply shall consult with the department to identify compliance monitoring locations for R 325.10610d and R 325.10719h to R 325.10719n. The supply shall then develop a monitoring plan under R 325.10719i that includes those monitoring locations.

R 325.10719i Disinfection byproducts; monitoring plan.

Rule 719i. (1) Both of the following provisions apply to developing the monitoring plan for community or nontransient noncommunity water supplies that are subject to disinfection byproducts requirements of R 325.10610d:

(a) The supply shall develop and implement a monitoring plan to be kept on file for department and public review. The monitoring plan shall contain all of the following elements and be complete not later than the date the supply conducts the initial monitoring under R 325.10610d and R 325.10719h to R 325.10719n:

(i) Monitoring locations.

(ii) Monitoring dates.
(iii) Compliance calculation procedures.
(iv) Monitoring plans for the other supplies in the combined distribution system if the department has reduced monitoring requirements under R 325.10733.
(b) A supply that was not required to submit an IDSE report under either 40 CFR 141.601 or 40 CFR 141.602, and that does not have sufficient R 325.10719e monitoring locations to identify the required number of monitoring locations indicated in 40 CFR 141.605(b) for compliance with R 325.10719h to R 325.10719j, shall identify additional locations by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of monitoring locations have been identified for compliance with R 325.10719h to R 325.10719j. The supply shall also provide the rationale for identifying the locations as having high levels of TTHM or HAA5. If the supply has more R 325.10719e monitoring locations than identified in 40 CFR 141.605(b) for compliance with R 325.10719h to R 325.10719j, the supply shall identify which monitoring locations the supply will use for compliance with R 325.10719h to R 325.10719j by alternating selection of locations representing high TTHM levels and high HAA5 levels until the required number of monitoring locations have been identified. The 40 CFR 141 sections cited in this subdivision are adopted by reference in R 325.10719g.
(2) A subpart H supply serving greater than 3,300 people shall submit a copy of the monitoring plan to the department before the date the supply conducts the initial monitoring under R 325.10610d and R 325.10719h to R 325.10719n, unless the IDSE report submitted under 40 CFR 141.600 to 40 CFR 141.605, as adopted by reference in Rule 325.10719g, contains all the information required under R 325.10610d and R 325.10719h to R 325.10719n.
(3) The supply may revise the monitoring plan to reflect changes in treatment, distribution system operations and layout, including new service areas, or other factors that may affect TTHM or HAA5 formation, or for department approved reasons, after consultation with the department regarding the need for changes and the appropriateness of changes. If the supply changes monitoring locations, the supply shall replace existing compliance monitoring locations with the lowest LRAA with new locations that reflect the current distribution system locations with expected high TTHM or HAA5 levels. The department may also require modifications in the monitoring plan. A subpart H supply serving greater than 3,300 people shall submit a copy of the modified monitoring plan to the department before the date the supply is required to comply with the revised monitoring plan.

R 325.10719j Disinfection byproducts; reduced monitoring.
Rule 719j. (1) The community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d may reduce monitoring any time the LRAA is less than or equal to 0.040 mg/L for TTHM and less than or equal to 0.030 mg/L for HAA5 at all monitoring locations. The supply may only use data collected under R 325.10610b to R 325.10610d, R 325.10719e to R 325.10719f, and R 325.10719h to R 325.10719n to qualify for reduced monitoring. In addition, the source water annual average TOC level, before treatment, shall be less than or equal to 4.0 mg/L at each treatment plant treating surface water or groundwater under the direct influence of surface water, based on monitoring conducted under either R 325.10719e(2)(a)(3) or R 325.10719e(4). Reduced monitoring shall be to the level specified in the following table:

Source Water Type	Population size category	Monitoring Frequency *	Distribution system monitoring location per monitoring period

Subpart H	**less than 500**		**monitoring may not be reduced**
Subpart H	**500 to 3,300**	**per year**	**1 TTHM and 1 HAA5 sample: 1 at the location and during the quarter with the highest TTHM single measurement, 1 at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.**
Subpart H	**3,301 to 9,999**	**per quarter**	**2 dual sample sets: 1 at the location and during the quarter with the highest TTHM single measurement, 1 at the location and during the quarter with the highest HAA5 single measurement.**
Subpart H	**10,000 to 49,999**	**per quarter**	**2 dual sample sets at the locations with the highest TTHM and highest HAA5 LRAAs.**
Subpart H	**50,000 to 249,999**	**per quarter**	**4 dual sample sets--at the locations with the 2 highest TTHM and 2 highest HAA5 LRAAs.**
Subpart H	**250,000 to 999,999**	**per quarter**	**6 dual sample sets--at the locations with the 3 highest TTHM and 3 highest HAA5 LRAAs.**
Subpart H	**1,000,000 to 4,999,999**	**per quarter**	**8 dual sample sets--at the locations with the 4 highest TTHM and 4 highest HAA5 LRAAs.**
Subpart H	**greater than or equal to 5,000,000**	**per quarter**	**10 dual sample sets--at the locations with the 5 highest TTHM and 5 highest HAA5 LRAAs.**
Groundwater	**less than 500**	**every third year**	**1 TTHM and 1 HAA5 sample: 1 at the location and during the quarter with the highest TTHM single measurement, 1 at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.**

Groundwater	**500 to 9,999**	**per year**	**1 TTHM and 1 HAA5 sample: 1 at the location and during the quarter with the highest TTHM single measurement, 1 at the location and during the quarter with the highest HAA5 single measurement; 1 dual sample set per year if the highest TTHM and HAA5 measurements occurred at the same location and quarter.**
Groundwater	**10,000 to 99,999**	**per year**	**2 dual sample sets: 1 at the location and during the quarter with the highest TTHM single measurement, 1 at the location and during the quarter with the highest HAA5 single measurement.**
Groundwater	**100,000 to 499,999**	**per quarter**	**2 dual sample sets; at the locations with the highest TTHM and highest HAA5 LRAAs.**
Groundwater	**greater than or equal to 500,000**	**per quarter**	**4 dual sample sets at the locations with the 2 highest TTHM and 2 highest HAA5 LRAAs.**

*** Supplies on quarterly monitoring shall take dual sample sets every 90 days.**

(2) The supply may remain on reduced monitoring as long as the TTHM LRAA less than or equal to 0.040 mg/L and the HAA5 LRAA less than or equal to 0.030 mg/L at each monitoring location (for supplies with quarterly reduced monitoring) or each TTHM sample less than or equal to 0.060 mg/L and each HAA5 sample less than or equal to 0.045 mg/L (for supplies with annual or less frequent monitoring). In addition, the source water annual average TOC level, before treatment, shall be less than or equal to 4.0 mg/L at each treatment plant treating surface water or groundwater under the direct influence of surface water, based on monitoring conducted under either R 325.10719e(2)(a)(3) or R 325.10719e(4).
(3) If the LRAA based on quarterly monitoring at a monitoring location exceeds either 0.040 mg/L for TTHM or 0.030 mg/L for HAA5 or if the annual (or less frequent) sample at a location exceeds either 0.060 mg/L for TTHM or 0.045 mg/L for HAA5, or if the source water annual average TOC level, before treatment, is greater than 4.0 mg/L at a treatment plant treating surface water or groundwater under the direct influence of surface water, the supply shall resume routine monitoring under R 325.10719h or begin increased monitoring if R 325.10719k applies.
(4) The department may return the supply to routine monitoring under R 325.10732.

R 325.10719k Disinfection byproducts; conditions requiring increased monitoring.
Rule 719k. (1) A community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d and that is required to monitor at a particular location annually or less frequently than annually under routine monitoring in R 325.10719h or reduced monitoring in R 325.10719j shall increase monitoring to dual sample sets once per quarter, taken every 90 days, at all locations if a TTHM sample is greater than 0.080 mg/L or a HAA5 sample is greater than 0.060 mg/L at any location.

(2) The supply is in violation of the MCL when the LRAA exceeds the MCLs in R 325.10610(2), calculated based on 4 consecutive quarters of monitoring, or the LRAA calculated based on fewer than 4 quarters of data if the MCL would be exceeded regardless of the monitoring results of subsequent quarters. The supply is in violation of the monitoring requirements for each quarter that a monitoring result would be used in calculating an LRAA if the supply fails to monitor.
(3) The supply may return to routine monitoring once the supply has conducted increased monitoring for not less than 4 consecutive quarters and the LRAA for every monitoring location is less than or equal to 0.060 mg/L for TTHM and less than or equal to 0.045 mg/L for HAA5.

R 325.10719l Disinfection byproducts: operational evaluation levels.
Rule 719l. (1) The community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d has exceeded the operational evaluation level at a monitoring location where the sum of the 2 previous quarters' TTHM results plus twice the current quarter's TTHM result, divided by 4 to determine an average, exceeds 0.080 mg/L, or where the sum of the 2 previous quarters' HAA5 results plus twice the current quarter's HAA5 result, divided by 4 to determine an average, exceeds 0.060 mg/L.
(2) Both of the following provisions apply to operational evaluations:
(a) A supply that exceeds the operational evaluation level shall conduct an operational evaluation and submit a written report of the evaluation to the department not later than 90 days after being notified of the analytical result that causes the supply to exceed the operational evaluation level. The written report shall be made available to the public upon request.
(b) The operational evaluation shall include an examination of system treatment and distribution operational practices, including storage tank operations, excess storage capacity, distribution system flushing, changes in sources or source water quality, and treatment changes or problems that may contribute to TTHM and HAA5 formation and what steps could be considered to minimize future exceedences. Both of the following provisions apply to limiting the scope of the operational evaluation:
(i) The supply may request and the department may allow the supply to limit the scope of the evaluation if the supply is able to identify the cause of the operational evaluation level exceedance.
(ii) The request to limit the scope of the evaluation does not extend the schedule in subdivision (a) of this subrule for submitting the written report. The department shall approve this limited scope of evaluation in writing and the supply shall keep that approval with the completed report.

R 325.10719m Disinfection byproducts; requirements for remaining on reduced or increased TTHM and HAA5 monitoring.
Rule 719m. (1) The community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d may remain on reduced monitoring after the dates identified in R 325.10610d(3) for compliance with R 325.10610d and R 325.10719h to R 325.10719n only if the supply qualifies for a 40/30 certification under 40 CFR 141.603 or have received a very small system waiver under 40 CFR 141.604, plus the supply meets the reduced monitoring criteria in R 325.10719j(1), and the supply does not change or add monitoring locations from those used for compliance monitoring under R 325.10719e. If the monitoring locations under R 325.10719h to R 325.10719j differ from the monitoring locations under R 325.10719e, the supply may not remain on reduced monitoring after the dates identified in R 325.10610d(3) for compliance with R 325.10610d and R 325.10719h to R 325.10719n. The 40 CFR 141.603 and 40 CFR 141.604 are adopted by reference in R 325.10719g.

(2) The supply that was on increased monitoring under R 325.10719e(2)(a), shall remain on increased monitoring until the supply qualifies for a return to routine monitoring under R 325.10719k(3). The supply shall conduct increased monitoring under R 325.10719k at the monitoring locations in the monitoring plan developed under R 325.10719i beginning at the date identified in R 325.10610d(3) for compliance with R 325.10610d and R 325.10719h to R 325.10719n and remain on increased monitoring until the supply qualifies for a return to routine monitoring under R 325.10719k.

R 325.10719n Disinfection byproducts; reporting and recordkeeping requirements.
Rule 719n. (1) A community or nontransient noncommunity water supply that is subject to disinfection byproducts requirements of R 325.10610d shall report all of the following:
(a) The supply shall report all of the following information for each monitoring location to the department within 10 days of the end of a quarter in which monitoring is required:
(i) Number of samples taken during the last quarter.
(ii) Date and results of each sample taken during the last quarter.
(iii) Arithmetic average of quarterly results for the last 4 quarters for each monitoring location (LRAA), beginning at the end of the fourth calendar quarter that follows the compliance date and at the end of each subsequent quarter. If the LRAA calculated based on fewer than 4 quarters of data would cause the MCL to be exceeded regardless of the monitoring results of subsequent quarters, the supply shall report this information to the department as part of the first report due following the compliance date or anytime thereafter that this determination is made. If the supply is required to conduct monitoring at a frequency that is less than quarterly, the supply shall make compliance calculations beginning with the first compliance sample taken after the compliance date, unless the supply is required to conduct increased monitoring under R 325.10719k.
(iv) Whether, based on R 325.10610(2), R 325.10610d and R 325.10719h to R 325.10719n, the MCL was violated at a monitoring location.
(v) Any operational evaluation levels that were exceeded during the quarter and, if so, the location and date, and the calculated TTHM and HAA5 levels.
(b) A subpart H supply that is seeking to qualify for or remain on reduced TTHM/HAA5 monitoring shall report all of the following source water TOC information for each treatment plant that treats surface water or groundwater under the direct influence of surface water to the department within 10 days of the end of a quarter in which monitoring is required:
(i) The number of source water TOC samples taken each month during last quarter.
(ii) The date and result of each sample taken during last quarter.
(iii) The quarterly average of monthly samples taken during last quarter or the result of the quarterly sample.
(iv) The running annual average (RAA) of quarterly averages from the past 4 quarters.
(v) Whether the RAA exceeded 4.0 mg/L.
(c) The department may choose to perform calculations and determine whether the MCL was exceeded or the supply is eligible for reduced monitoring instead of having the supply report that information.
(2) The supply shall retain monitoring plans and monitoring results of monitoring conducted under R 325.10610d and R 325.10719h to R 325.10719n, as required by R 325.11506(1)(g).

R 325.10720 Filtration and disinfection; filtration sampling requirements
Rule 720. (1) ~~Suppliers of subpart H systems~~ **Subpart H supplies** shall monitor under this rule to determine compliance with R 325.10611a and R 325.10611b.

(2) All of the following provisions are turbidity monitoring requirements:
(a) ~~Suppliers~~ **Supplies** shall collect samples and perform measurements for turbidity at locations representative of filtered water at regular intervals at least once every 4 hours while the treatment plant is in operation.
(b) A public water ~~supplier~~ **supply** may substitute continuous turbidity monitoring for grab sample monitoring if the continuous measurement is validated for accuracy on a regular basis using a protocol approved by the department. Readings taken from a continuous recording turbidimeter at regular intervals at least once every 4 hours may be used to determine compliance with the treatment technique under R 325.10611b. The turbidimeter shall be calibrated using the procedure specified by the manufacturer.
(c) ~~Suppliers of systems~~ **Supplies** using conventional or direct filtration shall conduct continuous monitoring of turbidity for each individual filter and shall calibrate turbidimeters using the procedure specified by the manufacturer. ~~Suppliers~~ **Supplies** shall record the results of individual filter monitoring every 15 minutes. Until December 31, 2004, this subdivision applies only to ~~systems~~ **supplies** serving 10,000 or more people. Beginning January 1, 2005, this subdivision also applies to ~~systems~~ **supplies** serving fewer than 10,000 people.
(d) If there is a failure in the continuous turbidity monitoring equipment described in subdivision ~~(b)~~ **(c)** of this subrule, then the ~~supplier~~ **supply** shall conduct grab sampling every 4 hours instead of continuous monitoring, but for not more than 5 working days after the failure of the equipment for ~~systems~~ **supplies** serving 10,000 or more people or 14 days for ~~systems~~ **supplies** serving fewer than 10,000 people before a violation is incurred.
(e) If the ~~system~~ **supply** serves fewer than 10,000 people and consists of only 2 or fewer filters, then the ~~supplier~~ **supply** may conduct continuous monitoring of combined filter effluent turbidity instead of individual filter effluent turbidity monitoring. Continuous monitoring shall meet the same requirements in subdivisions (c) and (d) of this subrule.
(3) All of the following provisions are disinfectant residual monitoring requirements at the entry points to the distribution system:
(a) ~~Suppliers of systems~~ **Supplies** serving more than 3,300 people shall monitor for residual disinfectant concentration at an entry point to the distribution system on a continuous basis.
(b) ~~Suppliers of systems~~ **Supplies** serving fewer than 3,301 people shall monitor for residual disinfectant concentration at an entry point to the distribution system at a frequency set forth in table 1 of this rule, and, if more than 1 sample is required per day, supplie~~r~~s shall collect samples at times evenly spaced throughout the operational day.

Table 1 Residual disinfectant concentration sampling frequencies

~~System~~ **Supply** size by population	Samples per day
500 or fewer people	1
501 to 1,000 people	2
1,001 to 2,500 people	3
2,501 to 3,300 people	4

(c) ~~Suppliers~~ **Under R 325.10611a, supplies** shall maintain a residual disinfectant concentration entering the distribution system of not less than 0.2 milligrams per liter. If the residual disinfectant concentration drops below this level at any time, then the ~~supplier~~ **supply** shall notify the department as soon as possible, but not later than the end of the next business day. In addition, the ~~supplier of water~~ **supply** shall notify the department by the end of the next business day whether or not the residual disinfectant concentration was restored to not less than 0.2 milligrams per liter within 4 hours.

(4) The residual disinfectant concentration shall be measured, at least, at the same points in the distribution system and at the same time as total coliforms are sampled, as specified in R 325.10704 to R 325.10709. Heterotrophic bacteria, measured as heterotrophic plate count (HPC) may be measured instead of residual disinfectant concentration.

R 325.10720b Enhanced treatment for Cryptosporidium; source water monitoring.
Rule 720b. (1) This rule applies to subpart H supplies as set forth in R 325.10611d.
(2) Title 40 CFR 141 Subpart W sections pertaining to source water monitoring requirements, being 40 CFR 141.701 to 40 CFR 141.707, (2008), are adopted by reference, except that provisions pertaining to unfiltered systems are not adopted by reference as specified in subdivision (c) of this subrule. The adopted material is contained in Title 40 CFR Parts 136 to 149 which is available for purchase for $64.00 at the time of adoption of these rules from the superintendent of documents at the address in R 325.10116(b). The adopted material is available for inspection and a copy is available at no cost from the offices of the department at the address in R 325.10116(a). All of the following apply to the adopted material:
(a) Subpart W consists of all of the following sections of Title 40 CFR Part 141:
(i) 40 CFR 141.701 Source water monitoring.
(ii) 40 CFR 141.702 Sampling schedules.
(iii) 40 CFR 141.703 Sampling locations.
(iv) 40 CFR 141.704 Analytical methods.
(v) 40 CFR 141.705 Approved laboratories.
(vi) 40 CFR 141.706 Reporting source water monitoring results.
(vii) 40 CFR 141.707 Grandfathering previously collected data.
(b) For the purposes of this rule, the following substitutions shall be made for terms used in the portions of 40 CFR 141 listed in subdivision (a) of this subrule.
(i) "[Sec.]141.74" means R 325.10605.
(ii) "[Sec.]141.173(b) or [Sec.]141.552(a), as applicable," means R 325.10611b(3).
(iii) "[Sec.]141.710 or [Sec.]141.712" means R 325.10611e.
(iv) "[Sec.]141.710 or determination of the mean Cryptosporidium level under [Sec.]141.712, as applicable" means R 325.10611e.
(v) "[Sec.]141.710(b)(5) or [Sec.]141.712(a)(3), as applicable," means R 325.10611e(2)(e).
(vi) "[Sec.]141.711" means R 325.10611f.
(vii) "[Sec.]141.711 or [Sec.]141.712, as applicable," means R 325.10611f.
(viii) "[Sec.]141.713" means R 325.10611g.
(ix) "[Sec.]141.717(c)" means R 325.10611j(3).
(x) "EPA" means the U.S. Environmental Protection Agency.
(xi) "State" means department.
(c) All of the following portions of 40 CFR 141, Subpart W are not adopted by reference under this rule:
(i) 40 CFR 141.701(a)(2).
(ii) 40 CFR 141.701(a)(6).
(iii) 40 CFR 141.701(d)(2).
(iv) Other portions of 40 CFR 141.701 pertaining to unfiltered water systems.

R 325.10720c Enhanced treatment for Cryptosporidium; disinfection profiling and benchmarking; making significant change in disinfection practice.

Rule 720c. Following the completion of initial source water monitoring under 40 CFR 141.701(a), as adopted by reference in R 325.10720b, a Subpart H supply that is subject to R 325.10611d and that plans to make a significant change to its disinfection practice, as defined in R 325.10722(4)(a), shall develop disinfection profiles and calculate disinfection benchmarks for Giardia lamblia and viruses as described in R 325.10720d. Before changing the disinfection practice, the Subpart H supply shall notify the department and shall include in this notice all of the information in R 325.10722(4)(b)(i) to (iv).

R 325.10720d Enhanced treatment for Cryptosporidium; developing the disinfection profile and benchmark.
Rule 720d. (1) Subpart H supplies required to develop disinfection profiles under R 325.10720c shall follow the requirements of this rule. These Subpart H supplies are also considered "supplies" in this rule. Supplies shall monitor under subrule (2) of this rule to determine the total log inactivation for Giardia lamblia and viruses. Supplies shall determine log inactivation for Giardia lamblia through the entire plant, based on the protocol in R 325.10722(3)(b). Supplies shall determine log inactivation for viruses through the entire treatment plant, based on the protocol in R 325.10722(3)(c).
(2) Subpart H supplies with a single point of disinfectant application before the entrance to the distribution system shall conduct the monitoring in R 325.10722(3)(a). Supplies with more than 1 point of disinfectant application shall conduct the monitoring in R 325.10722(3)(a) for each disinfection segment. Subpart H supplies shall monitor the parameters necessary to determine the total inactivation ratio.
(3) Instead of conducting new monitoring under subrule (2) of this rule, Subpart H supplies may elect to meet the requirements of either of the following:
(a) Supplies that have at least 1 year of existing data that are substantially equivalent to data collected under R 325.10722(3)(a) to meet the requirements of subule (2) of this rule may use these data to develop disinfection profiles as specified in this rule if the supply has neither made a significant change to its treatment practice nor changed sources since the data were collected. Supplies may develop disinfection profiles using up to 3 years of existing data.
(b) Supplies may use a disinfection profile or profiles developed under R 325.10722 instead of developing a new profile if the supply has neither made a significant change to its treatment practice nor changed sources since the profile was developed. Supplies that have not developed a virus profile under R 325.10722 shall develop a virus profile using the same monitoring data on which the Giardia lamblia profile is based.
(4) Subpart H supplies shall calculate the total inactivation ratio for Giardia lamblia using the protocol in R 325.10722(3)(b). Supplies shall calculate the log of inactivation for viruses using the protocol in R 325.10722(3)(c).
(5) Subpart H supplies shall use the procedures in R 325.10722(4)(e) to calculate a disinfection benchmark.

R 325.10720e Enhanced treatment for Cryptosporidium; reporting and recordkeeping requirements.
Rule 720e. (1) Subpart H supplies that are subject to R 325.10611d shall report sampling schedules under 40 CFR 141.702 and source water monitoring results under 40 CFR 141.706 unless they notify the department that they will not conduct source water monitoring due to meeting the criteria of 40 CFR 141.701(d). These Subpart H supplies are also considered

"supplies" in this rule. The department adopts 40 CFR 141.701, 40 CFR 141.702, and 40 CFR 141.706 by reference in R 325.10720b.
(2) Supplies shall report their Cryptosporidium bin classification as described in R 325.10611e.
(3) Supplies shall report disinfection profiles and benchmarks to the department as described in R 325.10720c to R 325.10720d before making a significant change in disinfection practice.
(4) Supplies shall report to the department under the following table for the microbial toolbox options used to comply with treatment requirements under R 325.10611f. Alternatively, the department may approve a supply to certify operation within required parameters for treatment credit rather than reporting monthly operational data for toolbox options.

Microbial Toolbox Reporting Requirements

Toolbox option	Supplies shall submit all of the following information:	On the following schedule:
(a) Watershed control program (WCP)	(i) Notice of intention to develop a new or continue an existing watershed control program.	Not later than 2 years before the applicable treatment compliance date in R 325.10611g.
	(ii) Watershed control plan	Not later than 1 year before the applicable treatment compliance date in R 325.10611g.
	(iii) Annual watershed control program status report.	Every 12 months, beginning 1 year after the applicable treatment compliance date in R 325.10611g.
	(iv) Watershed sanitary survey report.	For community water supplies, every 3 years beginning 3 years after the applicable treatment compliance date in R 325.10611g. For noncommunity water supplies, every 5 years beginning 5 years after the applicable treatment compliance date in R 325.10611g.
(b) Alternative source/intake management	Verification that supply has relocated the intake or adopted the intake withdrawal procedure reflected in monitoring results.	Not later than the applicable treatment compliance date in R 325.10611g.

Toolbox option	Supplies shall submit all of the following information:	On the following schedule:
(c) Presedimentation	Monthly verification of all of the following: (i) Continuous basin operation. (ii) Treatment of 100% of the flow. (iii) Continuous addition of a coagulant. (iv) Not less than 0.5-log mean reduction of influent turbidity or compliance with alternative department approved performance criteria.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(d) 2-stage lime softening	Monthly verification of both of the following: (i) Chemical addition and hardness precipitation occurred in 2 separate and sequential softening stages before filtration. (ii) Both stages treated 100% of the plant flow.	Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(e) Bank filtration	(i) Initial demonstration of both of the following: (A) Unconsolidated, predominantly sandy aquifer. (B) Setback distance of not less than 25 ft. (0.5-log credit) or 50 ft. (1.0-log credit).	Not later than the applicable treatment compliance date in R 325.10611g.
	(ii) If monthly average of daily max turbidity is greater than 1 NTU then supply shall report result and submit an assessment of the cause.	Report within 30 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.

Toolbox option	**Supplies shall submit all of the following information:**	**On the following schedule:**
(f) Combined filter performance	**Monthly verification of combined filter effluent (CFE) turbidity levels less than or equal to 0.15 NTU in not less than 95% of the 4-hour CFE measurements taken each month.**	**Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.**
(g) Individual filter performance	**Monthly verification of both of the following:** **(i) Individual filter effluent (IFE) turbidity levels less than or equal to 0.15 NTU in not less than 95% of samples each month in each filter.** **(ii) No individual filter greater than 0.3 NTU in 2 consecutive readings 15 minutes apart.**	**Monthly reporting within 10 days following the month in which the monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.**
(h) Demonstration of performance	**(i) Results from testing following a department approved protocol.**	**Not later than the applicable treatment compliance date in R 325.10611g.**
	(ii) As required by the department, monthly verification of operation within conditions of department approval for demonstration of performance credit.	**Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.**

Toolbox option	**Supplies shall submit all of the following information:**	**On the following schedule:**
(i) Bag filters and cartridge filters	**(i) Demonstration that both of the following criteria are met:** **(A) Process meets the definition of bag or cartridge filtration.** **(B) Removal efficiency established through challenge testing that meets criteria in R 325.10611d to R 325.10611n and R 325.10720b to R 325.10720e.**	**Not later than the applicable treatment compliance date in R 325.10611g.**
	(ii) Monthly verification that 100% of plant flow was filtered.	**Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.**
(j) Membrane filtration	**(i) Results of verification testing demonstrating both of the following:** **(A) Removal efficiency established through challenge testing that meets criteria in R 325.10611d to R 325.10611n and R 325.10720b to R 325.10720e.** **(B) Integrity test method and parameters, including resolution, sensitivity, test frequency, control limits, and associated baseline.**	**Not later than the applicable treatment compliance date in R 325.10611g.**

Toolbox option	Supplies shall submit all of the following information:	On the following schedule:
	(ii) Monthly report summarizing the following: (A) All direct integrity tests above the control limit. (B) If applicable, a turbidity or alternative state approved indirect integrity monitoring results triggering direct integrity testing and the corrective action that was taken.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(k) Second stage filtration	Monthly verification that 100% of flow was filtered through both stages and that first stage was preceded by coagulation step.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(l) Slow sand filtration as secondary filter.	Monthly verification that both a slow sand filter and a preceding separate stage of filtration treated 100% of flow from surface water or GWUDI sources.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(m) Chlorine dioxide	Summary of CT values for each day as described in R 325.10611m.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.
(n) Ozone	Summary of CT values for each day as described in R 325.10611m.	Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.

Toolbox option	**Supplies shall submit all of the following information:**	**On the following schedule:**
(o) UV	**(i) Validation test results demonstrating operating conditions that achieve required UV dose.**	**Not later than the applicable treatment compliance date in R 325.10611g.**
	(ii) Monthly report summarizing the percentage of water entering the distribution system that was not treated by UV reactors operating within validated conditions for the required dose as specified in R 325.10611m.	**Within 10 days following the month in which monitoring was conducted, beginning on the applicable treatment compliance date in R 325.10611g.**

(5) Supplies shall retain records under R 325.11508.

R 325.10722 Filtration and disinfection; disinfection profiling and benchmarking.
Rule 722. (1) A subpart H ~~system~~ **supply** making a significant change to its disinfection practice, as described in subrule (4)(a)(i) to (iv) of this rule shall consult with the department before making the change.
(2) A subpart H community or nontransient noncommunity ~~system~~ **supply** serving fewer than 10,000 people shall develop a disinfection profile of weekly log inactivations over 52 weeks and report to the department under R 325.10720a(5). **Until the effective date of the disinfection profiling and benchmarking provisions of R 325.10720d, a supply** ~~A system~~ whose TTHM and HAA5 levels are below profiling trigger levels of 0.064 mg/l and 0.048 mg/l, respectively, are not required to develop a disinfection profile. To determine these levels, TTHM and HAA5 samples shall be collected after January 1, 1998, during the month with the warmest water temperature, and at a point of maximum resident time in the distribution system.
(3) All of the following provisions apply to disinfection profiling:
(a) To determine the total log inactivation, ~~systems~~ **supplies** shall monitor ~~during peak hourly flow, once per week on the same calendar day, over 12 consecutive months,~~ **at least weekly for a period of 12 consecutive months. If supplies monitor more frequently, the monitoring frequency shall be evenly spaced. Supplies that operate for fewer than 12 months per year shall monitor weekly during the period of operation. Supplies shall monitor** all of the following parameters:
(i) **If a disinfectant other than UV is used, the temperature** ~~Temperature~~ of the disinfected water **shall be measured** at each residual ~~disinfected~~ **disinfectant** concentration sampling point **during peak hourly flow or at an alternative location approved by the department**.
(ii) If chlorine is used, the pH of the disinfected water **shall be measured** at each **chlorine** residual disinfect~~ed~~ **disinfectant** concentration sampling point **during peak hourly flow or at an alternative location approved by the department**.
(iii) Disinfectant contact time or times ("T") **shall be determined during peak hourly flow**.

(iv) Residual disinfectant concentration or concentrations ("C") of the water before or at the first customer and before each additional point of ~~disinfection~~ **disinfectant application shall be measured during peak hourly flow**.

(b) **A supply shall determine log inactivation for Giardia lamblia through the entire plant, based on CT99.9 values in Tables 1.1 to 1.6, 2.1 and 3.1 of 40 CFR 141.74(b)(3)(v), (2008), as applicable. The adopted material is contained in Title 40 CFR Parts 136 to 149 which is available for purchase for $64.00 at the time of adoption of these rules from the superintendent of documents at the address in R 325.10116(b). The adopted material is available for inspection, or a copy is available at no cost from the offices of the department at the address in R 325.10116(a). A supply shall calculate the total logs of inactivation for Giardia lamblia as follows:** ~~Use the tables in 40 CFR 141.74(b)(3)(v) to determine the appropriate CT99.9 value. The tables in 40 CFR 141.74(b)(3)(v) are adopted by reference and available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a). Calculate the total inactivation ratio as follows, and then multiply the value by 3.0 to determine log activation of *Giardia lamblia*:~~

(i) ~~If the system uses only 1 point of disinfectant application, then the system shall determine either of the following:~~ **A supply using only 1 point of disinfectant application shall determine the total inactivation ratio for the disinfection segment based on either of the following methods:**

(A) ~~One~~ **Determine 1** inactivation ratio ($CTcalc/CT_{99.9}$) before or at the first customer during peak hourly flow.

(B) **Determine successive** ~~Successive~~ $CTcalc/CT_{99.9}$ values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. ~~Under this alternative, the system~~ **The supply** shall calculate the total inactivation ratio by determining ($CTcalc/CT_{99.9}$) for each sequence and then adding the ($CTcalc/CT_{99.9}$) values together to determine $\sum(CTcalc/CT_{99.9})$.

(ii) ~~If the system uses~~ **A supply using** more than 1 point of disinfectant application before the first customer~~, then the system~~ shall determine the ($CTcalc/CT_{99.9}$) value of each disinfection segment immediately before the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow**. The (CTcalc/CT99.9) value of each segment and ∑(CTcalc/CT99.9) shall be calculated** using the ~~procedure~~ **method** specified in paragraph (i)(B) of this subdivision.

(iii) The supply shall determine the total logs of inactivation by multiplying the value calculated in paragraph (i) or (ii) of this subdivision by 3.0.

(c) ~~If the system~~ **A supply that** uses chloramines, ozone, or chlorine dioxide for primary disinfection**, and a supply subject to R 325.10720d**, ~~then the system~~ shall calculate the logs of inactivation for viruses **through the entire treatment plant based on CT99.99 values in the tables in Appendix B of the LT1ESWTR Disinfection Profiling and Benchmarking Technical Guidance Manual, May 2003, as applicable,** and develop a~~n additional~~ disinfection profile for viruses. ~~Use the tables of CT values for 4-log inactivation of viruses in Appendix B of the LT1ESWTR Disinfection Profiling and Benchmarking Technical Guidance Manual, May 2003, to determine the appropriate CT99.99 value.~~ The tables in the previous sentence are adopted by reference and available from Educational REALMS (document C-900) at 1929 Kenny Road, Columbus, Ohio 43210-1080, Internet address www.stemworks.org, telephone number 800-276-0462, for a cost of $32.50 at the time of adoption of these rules **or accessible on the Internet at http://www.epa.gov/safewater/mdbp/lt1eswtr.html**. The adopted material is available for inspection, or ~~copies are~~ **a copy is** available at no cost from the offices of the department at the address in R 325.10116(a). ~~Calculate the total inactivation ratio in the~~

~~following manner, and then multiply the value by 4.0 to determine log activation of viruses:~~ **A supply shall calculate the total log of inactivation for viruses as follows:**

(i) ~~If the system uses only 1 point of disinfectant application, then the system shall determine either of the following:~~ **A supply using only 1 point of disinfection application shall determine the total inactivation ratio for the disinfection segment based on either of the following methods:**

(A) ~~One~~ **Determine 1** inactivation ratio ($CTcalc/CT_{99.99}$) before or at the first customer during peak hourly flow.

(B) **Determine successive** ~~Successive~~ $CTcalc/CT_{99.99}$ values, representing sequential inactivation ratios, between the point of disinfectant application and a point before or at the first customer during peak hourly flow. ~~Under this alternative, the system~~ **The supply** shall calculate the total inactivation ratio by determining ($CTcalc/CT_{99.99}$) for each sequence and then adding the ($CTcalc/CT_{99.99}$) values together to determine $\sum(CTcalc/CT_{99.99})$.

(ii) ~~If the system uses~~ **A supply using** more than 1 point of disinfectant application before the first customer~~, then the system~~ shall determine the ($CTcalc/CT_{99.99}$) value of each disinfection segment immediately before the next point of disinfectant application, or for the final segment, before or at the first customer, during peak hourly flow**. The (CTcalc/CT99.99) value of each segment and ∑(CTcalc/CT99.99) shall be calculated** using the ~~procedure~~ **method** specified in paragraph (i)(B) of this subdivision.

(iii) The supply shall determine the total logs of inactivation by multiplying the value calculated in paragraph (i) or (ii) of this subdivision by 4.0.

(d) The disinfection profile of the 52 measurements of log inactivations shall be represented in a graphic form, such as a spreadsheet and shall be retained and be available for review by the department as part of a sanitary survey. The data shall be used to create the disinfection benchmark under subrule (4) of this rule.

(4) A subpart H ~~system~~ **supply** that is required to develop a disinfection profile under subrule (2) of this rule shall develop a disinfection benchmark if the ~~system~~ **supply** makes a significant change to the disinfection practice. The ~~system~~ **supply** shall consult with the department for approval before implementing a significant disinfection practice change. An approved significant change in disinfection practices shall not jeopardize current levels of disinfection. All of the following provisions apply to disinfection benchmarking:

(a) Significant changes to disinfection practice include all of the following:

(i) Changes to the point of disinfection.

(ii) Changes to the disinfectant or disinfectants used in the treatment plant.

(iii) Changes to the disinfection process.

(iv) Any other modification identified by the department ~~that affects~~ **as a significant change to** disinfection practices.

(b) If the ~~system~~ **supply** is considering a significant change to its disinfection practice, it shall calculate a disinfection benchmark or benchmarks as described in subdivisions (c) and (d) of this subrule **or in subdivision (e) of this subrule, as applicable,** and provide the benchmark or benchmarks to the department. The ~~system~~ **supply** may only make a significant disinfection practice change after consulting with the department for approval. The ~~system~~ **supply** shall submit all of the following information to the department as part of the consultation and approval process:

(i) A description of the proposed change **in disinfection practice**.

(ii) **Until the effective date of R 325.10720d, the** ~~The~~ disinfection profile for *Giardia lamblia*, and, if necessary, viruses, and disinfection benchmark. **Beginning the effective date of R 325.10720d, a completed disinfection profile and disinfection benchmark for Giardia lamblia and viruses as described in R 325.10720d.**

(iii) An analysis of how the proposed change will affect the current levels of disinfection.
(iv) Any additional information requested by the department to demonstrate the results or benefits, or both, of the change to the disinfection practice.
(c) **Until the effective date of R 325.10720d, if** ~~If~~ the system is making a significant change to its disinfection practice, then it shall calculate a disinfection benchmark using the following procedure:
(i) Step 1: Using the data collected to develop the disinfection profile **required** under subrule (2) of this rule, the system shall determine the average *Giardia lamblia* inactivation for each calendar month by dividing the sum of all *Giardia lamblia* inactivations for that month by the number of values calculated for that month.
(ii) Step 2: The ~~system~~ **supply** shall determine the lowest monthly average value out of the 12 values. This value becomes the disinfection benchmark.
(d) **Until the effective date of R 325.10720d, if** ~~If~~ the ~~system~~ **supply** uses chloramines, ozone or chlorine dioxide for primary disinfection, then it shall calculate the disinfection benchmark from the data collected for viruses to develop the disinfection profile under subrule (2) of this rule in addition to the *Giardia lamblia* disinfection benchmark calculated under subdivision (c) of this subrule. This viral benchmark shall be calculated in the same manner used to calculate the *Giardia lamblia* disinfection benchmark in subdivision (c) of this subrule.
(e) Beginning the effective date of R 325.10720d, supplies shall use the following procedures to calculate a disinfection benchmark:
(i) For each year of profiling data collected and calculated under subrule (3)(a) to (c) of this rule, supplies shall determine the lowest mean monthly level of both Giardia lamblia and virus inactivation. Supplies shall determine the mean Giardia lamblia and virus inactivation for each calendar month for each year of profiling data by dividing the sum of daily or weekly Giardia lamblia and virus log inactivation by the number of values calculated for that month.
(ii) The disinfection benchmark is the lowest monthly mean value, for supplies with 1 year of profiling data, or the mean of the lowest monthly mean values, for supplies with more than 1 year of profiling data, of Giardia lamblia and virus log inactivation in each year of profiling data.

R 325.10730 Radionuclides; monitoring requirements for beta particle and photon radioactivity; applicability.
Rule 730. (1) To determine compliance with the maximum contaminant levels in R 325.10603(2)(c) for beta particle and photon radioactivity, a community water supply**, also considered a "water supply" or "supply" in this rule,** designated by the department as either vulnerable or utilizing water contaminated by effluents from nuclear facilities, shall sample for beta particle and photon radioactivity. The department's designation shall be based on monitoring data, environmental surveillance data collected in the vicinity of nuclear facilities, or source water assessments.
(2) Beginning within 1 quarter after being notified of the department's designation and continuing until the department reviews and either reaffirms or removes the designation, a supply shall collect samples at each entry point to the distribution system, known as sampling point, under both of the following provisions:
(a) For a vulnerable supply, quarterly samples for beta emitters and annual samples for tritium and strontium 90.
(b) For a supply utilizing waters contaminated by effluents from nuclear facilities, quarterly samples for beta emitters and iodine 131 and annual samples for tritium and strontium 90. A supply shall monitor and analyze the samples under all of the following provisions:
(i) Quarterly monitoring for gross beta particle activity shall be based on the analysis of monthly samples or the analysis of a composite of 3 monthly samples.

(ii) For iodine 131, a composite of 5 consecutive daily samples shall be analyzed once each quarter. As ordered by the department, more frequent monitoring shall be conducted when iodine 131 is identified in the finished water.
(iii) Annual monitoring for strontium 90 and tritium shall be conducted by means of the analysis of a composite of 4 consecutive quarterly samples or analysis of 4 quarterly samples.
(3) All of the following provisions apply for gross beta particle activity:
(a) A supply may analyze for naturally occurring potassium 40 beta particle activity from the same or equivalent sample used for the gross beta particle activity analysis. A supply may subtract the potassium 40 beta particle activity value from the total gross beta particle activity value to determine if the screening level in subdivision (b) of this subrule is exceeded. The potassium 40 beta particle activity shall be calculated by multiplying elemental potassium concentrations (in mg/L) by a factor of 0.82.
(b) If the gross beta particle activity minus the naturally occurring potassium 40 beta particle activity at a sampling point has a running annual average, computed quarterly, less than or equal to a screening level of 50 pCi/L for a vulnerable supply or 15 pCi/L for a supply utilizing waters contaminated by effluents from nuclear facilities, then the department may reduce the frequency of monitoring at that sampling point to once every 3 years. During the reduced monitoring period, a supply shall collect ~~all~~ **the same type of** samples required in subrule (2)(a) of this rule for a vulnerable supply or subrule (2)(b) of this rule for a supply utilizing water contaminated by effluents from nuclear facilities.
(c) If the gross beta particle activity minus the naturally occurring potassium 40 beta particle activity exceeds the **appropriate** screening level in subdivision (b) of this subrule, then an analysis of the sample shall be performed to identify the major radioactive constituents present in the sample and the appropriate doses shall be calculated and summed to determine compliance with R 325.10603(2)(c)(i), using the formula in R 325.10603(2)(c)(ii). Doses shall also be calculated and combined for measured levels of tritium and strontium to determine compliance.
(4) For a supply in the vicinity of a nuclear facility, the community water supply may utilize environmental surveillance data collected by the nuclear facility instead of monitoring at the supply's entry point or points, where the department determines that the data is applicable to a particular water supply. If there is a release from a nuclear facility, then a supply which uses surveillance data shall begin monitoring at the community water supply's entry point or points under subrule (2)(a) or (b) of this rule.
(5) A community water supply designated by the department to monitor for beta particle and photon radioactivity shall not apply to the department for a waiver from the monitoring frequencies specified in subrule (2)(a) or (b) of this rule.
(6) A supply shall monitor monthly at the sampling point or points that exceed the maximum contaminant level in R 325.10603(2)(c) beginning the month after the exceedance occurs. The supply shall continue monthly monitoring until the supply has established, by the average of results from any 3 consecutive months, that the MCL is being met. A supply that establishes that the MCL is being met shall return to quarterly monitoring until it meets the requirements set forth in subrule (3)(b) of this rule.

R 325.10731 Sample analyses; approved laboratories and personnel.
Rule 731. For the purpose of determining compliance with the monitoring requirements prescribed by this part, samples shall be considered valid only if they have been analyzed by a laboratory approved by the department, except that measurements for **alkalinity, bromide, calcium, daily chlorite samples at the entrance to the distribution system, conductivity, magnesium, orthophosphate, pH, residual disinfectant concentration, silica, specific ultraviolet absorbance, temperature, and** turbidity may be performed by personnel acceptable to the department.

R 325.10735 Vigilance of threats or hazards; notification to ~~division~~ **department**.
Rule 735. (1) A ~~supplier of water~~ **public water supply** shall maintain continued vigilance of activities posing threats or hazards of undue contamination to the source of water.
(2) In the event of a threat of contamination of a public water supply source, ~~a supplier of water~~ **the public water supply** shall immediately notify the ~~division~~ **department**.

R 325.10739 Groundwater supply rules; groundwater source microbial monitoring and analytical methods.
Rule 739. (1) All of the following provisions apply to triggered source water monitoring in a groundwater supply that is subject to R 325.10612:
(a) A groundwater supply shall conduct triggered source water monitoring if both of the following conditions exist:
(i) The groundwater supply does not provide at least 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for each groundwater source.
(ii) The groundwater supply is notified that a sample collected under R 325.10705 to R 325.10706 is total coliform positive and the sample is not invalidated under R 325.10707a.
(b) A groundwater supply shall collect, within 24 hours of notification of the total coliform positive sample, at least 1 groundwater source sample from each groundwater source in use at the time the total coliform positive sample was collected under R 325.10705 to R 325.10706, except as provided in paragraph (ii) of this subdivision. The sample shall be analyzed for the presence of E. coli, or if approved by the department, for the presence of enterococci or coliphage. All of the following apply to groundwater source sample requirements:
(i) The department may extend the 24-hour time limit on a case-by-case basis if the groundwater supply cannot collect the groundwater source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the department will specify how much time the groundwater supply has to collect the sample.
(ii) If approved by the department, groundwater supplies with more than 1 groundwater source may meet the requirements of this subdivision by sampling a representative groundwater source or sources. If directed by the department, groundwater supplies shall submit for department approval a triggered source water monitoring plan that identifies 1 or more groundwater sources that are representative of each monitoring site in the groundwater supply's sample siting plan under R 325.10705 to R 325.10706 and that the groundwater supply intends to use for representative sampling under this paragraph.
(iii) A groundwater supply serving 1,000 or fewer people may use a repeat sample collected from a groundwater source to meet both the requirements of R 325.10707 and to satisfy the monitoring requirements of this subdivision for that groundwater source. If the repeat sample collected from the groundwater source is E. coli positive, the groundwater supply shall comply with subdivision (c) of this subrule.
(c) If the department does not require corrective action under R 325.10612a(1)(b) for a fecal indicator positive source water sample collected under subdivision (b) of this subrule that is not invalidated under R 325.10739(3), the groundwater supply shall collect 5 additional source water samples from the same source within 24 hours of being notified of the fecal indicator positive sample and have it analyzed for the presence of E. coli, or with department approval, for the presence of enterococci or coliphage.
(d) Both of the following provisions apply to consecutive supplies and wholesale supplies:

(i) In addition to the other requirements of this subrule, a consecutive groundwater supply that has a total coliform positive sample collected under R 325.10705 to R 325.10706 shall notify the wholesale supply or supplies within 24 hours of being notified of the total coliform positive sample.
(ii) In addition to the other requirements of this subrule, a wholesale groundwater supply shall comply with both of the following:
(A) A wholesale groundwater supply that receives notice from a consecutive supply it serves that a sample collected under R 325.10705 to R 325.10706 is total coliform positive shall, within 24 hours of being notified, collect a sample from its groundwater source or sources under subdivision (b) of this subrule and have it analyzed for the presence of E. coli, or with department approval, for the presence of enterococci or coliphage.
(B) If the sample collected under subparagraph (A) of this paragraph is fecal indicator positive, the wholesale groundwater supply shall notify all consecutive supplies served by that groundwater source of the fecal indicator source water positive within 24 hours of being notified of the groundwater source sample monitoring result and shall meet the requirements of subdivision (c) of this subrule.
(e) Exceptions to the triggered source water monitoring requirements are either of the following. A groundwater supply is not required to comply with the source water monitoring requirements of subrule (1) of this rule if either of the following conditions exists:
(i) The department determines, and documents in writing, that the total coliform positive sample collected under R 325.10705 to R 325.10706 is caused by a distribution system deficiency.
(ii) The total coliform positive sample collected under R 325.10705 to R 325.10706 is collected at a location that meets department criteria for distribution system conditions that will cause total coliform positive samples.
(2) All of the following provisions apply to assessment source water monitoring. If directed by the department, groundwater supplies shall conduct assessment source water monitoring that meets department determined requirements for that monitoring. A groundwater supply conducting assessment source water monitoring may use a triggered source water sample collected under subrule (1)(b) of this rule to meet the requirements of this subrule. Department determined assessment source water monitoring requirements may include any of the following:
(a) Collection of a total of 12 groundwater source samples that represent each month the groundwater supply provides groundwater to the public.
(b) Collection of samples from each well unless the groundwater supply obtains written department approval to conduct monitoring at 1 or more wells within the groundwater supply that are representative of multiple wells used by that groundwater supply and that draw water from the same hydrogeologic setting.
(c) Collection of a standard sample volume of not less than 100 mL for fecal indicator analysis regardless of the fecal indicator or analytical method used.
(d) Analysis of all groundwater source samples for the presence of E. coli, or if approved by the department, for the presence of enterococci, or coliphage.
(e) Collection of groundwater source samples at a location before any treatment of the groundwater source unless the department approves a sampling location after treatment.
(f) Collection of groundwater source samples at the well itself unless the groundwater supply's configuration does not allow for sampling at the well itself and the department approves an alternate sampling location that is representative of the water quality of that well.
(3) All of the following provisions apply to invalidation of a fecal indicator positive groundwater source sample.

(a) A groundwater supply may obtain department invalidation of a fecal indicator positive groundwater source sample collected under triggered source water monitoring of subrule (1) of this rule only under either of the following conditions:
(i) The groundwater supply provides the department with written notice from the laboratory that improper sample analysis occurred.
(ii) The department determines and documents in writing that there is substantial evidence that a fecal indicator positive groundwater source sample is not related to source water quality.
(b) If the department invalidates a fecal indicator positive groundwater source sample, the groundwater supply shall collect another source water sample under subrule (1) of this rule within 24 hours of being notified by the department of its invalidation decision and have it analyzed for the same fecal indicator. The department may extend the 24-hour time limit on a case-by-case basis if the groundwater supply cannot collect the source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the department will specify how much time the groundwater supply has to collect the sample.
(4) Both of the following provisions apply to sampling location:
(a) A groundwater source sample required under subrule (1) of this rule shall be collected at a location before treatment of the groundwater source unless the department approves a sampling location after treatment.
(b) If the groundwater supply's configuration does not allow for sampling at the well itself, the groundwater supply may collect a sample at a department approved location to meet the requirements of subrule (1) of this rule if the sample is representative of the water quality of that well.
(5) If directed by the department, a groundwater supply that places a new groundwater source into service after November 30, 2009, shall conduct assessment source water monitoring under subrule (2) of this rule. If directed by the department, the groundwater supply shall begin monitoring before the groundwater source is used to provide water to the public.
(6) A groundwater supply with a groundwater source sample collected under subrule (1) or (2) of this rule that is fecal indicator positive and that is not invalidated under subrule (3) of this rule, including consecutive supplies served by the groundwater source, shall conduct public notification under R 325.10402.
(7) Failure to meet the requirements of subrules (1) to (5) of this rule is a monitoring violation and requires the groundwater supply to provide public notification under R 325.10404.

R 325.10739a Groundwater supply rules; compliance monitoring.
Rule 739a. (1) This subrule applies to existing groundwater sources. A groundwater supply that is not required to meet the source water monitoring requirements of R 325.10612, R 325.10612a, R 325.10739, this rule, or R 325.10739b for 1 or more groundwater sources because it provides not less than 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for 1 or more groundwater sources before December 1, 2009, shall notify the department in writing that it provides not less than 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for the specified groundwater source and begin compliance monitoring under subrule (3) of this rule by December 1, 2009. Notification to the department shall include engineering, operational, or other information that the department requests to evaluate the submission. If the groundwater supply subsequently discontinues 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first

customer for a groundwater source, the supply shall conduct groundwater source monitoring as required under R 325.10739.
(2) This subrule applies to new groundwater sources. A groundwater supply that places a groundwater source in service after November 30, 2009, that is not required to meet the source water monitoring requirements of R 325.10612, R 325.10612a, R 325.10739, this rule, or R 325.10739b because the groundwater supply provides not less than 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for the groundwater source shall comply with all of the following:
(a) The groundwater supply shall notify the department in writing that it provides not less than 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for the groundwater source. Notification to the department shall include engineering, operational, or other information that the department requests to evaluate the submission.
(b) The groundwater supply shall conduct compliance monitoring as required under subrule (3) of this rule within 30 days of placing the source in service.
(c) The groundwater supply shall conduct groundwater source monitoring under R 325.10739 if the groundwater supply subsequently discontinues 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer for the groundwater source.
(3) This subrule applies to monitoring requirements. A groundwater supply subject to the requirements of R 325.10612a or subrule (1) or (2) of this rule shall monitor the effectiveness and reliability of treatment for that groundwater source before or at the first customer as follows:
(a) Both of the following apply to chemical disinfection:
(i) A groundwater supply that serves more than 3,300 people shall continuously monitor the residual disinfectant concentration at a location approved by the department and shall record the lowest residual disinfectant concentration each day that water from the groundwater source is served to the public. The groundwater supply shall maintain the department determined residual disinfectant concentration every day the groundwater supply serves water from the groundwater source to the public. If there is a failure in the continuous monitoring equipment, the groundwater supply shall conduct grab sampling every 4 hours until the continuous monitoring equipment is returned to service. The groundwater supply shall resume continuous residual disinfectant monitoring within 14 days.
(ii) A groundwater supply that serves 3,300 or fewer people shall monitor the residual disinfectant concentration at a location approved by the department and record the residual disinfection concentration each day that water from the groundwater source is served to the public. The groundwater supply shall maintain the department determined residual disinfectant concentration every day the groundwater supply serves water from the groundwater source to the public. The groundwater supply shall take a daily grab sample during the hour of peak flow or at another time specified by the department. If any daily grab sample measurement falls below the department determined residual disinfectant concentration, the groundwater supply shall take follow-up samples every 4 hours until the residual disinfectant concentration is restored to the department determined level. Alternatively, a groundwater supply that serves 3,300 or fewer people may monitor continuously and meet the requirements of paragraph (i) of this subdivision.
(b) A groundwater supply that uses membrane filtration to meet the requirements of R 325.10612, R 325.10612a and R 325.10739, this rule, and R 325.10739b shall monitor the membrane filtration process under all department specified monitoring requirements and shall operate the membrane

filtration under all department specified compliance requirements. A groundwater supply that uses membrane filtration is in compliance with the requirement to achieve not less than 4-log removal of viruses when all of the following conditions are met:
(i) The membrane has an absolute molecular weight cut off (MWCO), or an alternate parameter that describes the exclusion characteristics of the membrane, that can reliably achieve not less than 4-log removal of viruses.
(ii) The membrane process is operated under department specified compliance requirements.
(iii) The integrity of the membrane is intact.
(c) A groundwater supply that uses a department approved alternative treatment to meet the requirements of R 325.10612, R 325.10612a and R 325.10739, this rule, and R 325.10739b by providing not less than 4-log treatment of viruses (using inactivation, removal, or a department approved combination of 4-log virus inactivation and removal) before or at the first customer shall comply with both of the following:
(i) Monitor the alternative treatment under all department specified monitoring requirements.
(ii) Operate the alternative treatment under all compliance requirements that the department determines to be necessary to achieve not less than 4-log treatment of viruses.
(4) A groundwater supply that discontinues 4-log treatment of viruses under R 325.10612a(3) is subject to the source water monitoring requirements of R 325.10739.
(5) Failure to meet the monitoring requirements of subrules (1) to (3) of this rule is a monitoring violation and requires the groundwater supply to provide public notification under R 325.10404.

R 325.10739b Groundwater supply rules; reporting and recordkeeping.
Rule 739b. (1) In addition to the reporting requirements of R 325.10734, a groundwater supply subject to R 325.10612 shall provide all of the following information to the department:
(a) A groundwater supply conducting compliance monitoring under R 325.10739a shall notify the department any time the groundwater supply fails to meet a department specified requirement including minimum residual disinfectant concentration, membrane operating criteria or membrane integrity, and alternative treatment operating criteria, if operation under the criteria or requirements is not restored within 4 hours. The groundwater supply shall notify the department as soon as possible, but in no case later than the end of the next business day.
(b) After completing any corrective action under R 325.10612a(1), a groundwater supply shall notify the department within 30 days of completion of the corrective action.
(c) If a groundwater supply subject to the requirements of R 325.10739(1) does not conduct source water monitoring under R 325.10739(1)(e)(ii), the groundwater supply shall provide documentation to the department within 30 days of the total coliform positive sample that it met the department criteria.
(2) A groundwater supply subject to R 325.10612 shall maintain records under R 325.11509.

PART 8. GROUNDWATER SOURCES

R 325.10801 Purpose.
Rule 801. The purpose of this part is to establish certain requirements and objectives for the isolation and construction of wells ~~which shall be met~~ **used** by public water supplies to provide a continuous, adequate quantity of water meeting the state drinking water standards.

R 325.10802 Applicability; approval of deviation from minimum standards and requirements.

Rule 802. (1) ~~The provisions of this part apply~~ **This part applies to public water supplies that use** ~~to~~ wells ~~used~~ to supply groundwater for a public water supply. ~~These rules are~~ **This part sets** minimum standards and requirements ~~which shall be considered by the department in the issuance of~~ **to be met to receive** permits or approvals **from the department** for waterworks systems. **For purpose of this part, a supplier of a proposed public water supply is considered a public water supply.**
(2) Deviations from the minimum standards and requirements ~~prescribed by~~ **in** this part may be approved by the department ~~upon a showing by an owner of~~ **if** a public water supply **demonstrates** that a deviation will not adversely affect the public health. Deviations from this part shall be by permit condition for type I or type II public water supplies, and in writing by the department for type III public water supplies.

R 325.10804 Type III public water supplies; applicability of other rules.
Rule 804. ~~Suppliers of water of type~~ **Type** III public water supplies shall comply with ~~the applicable provisions of rules of the department promulgated pursuant to Act No. 294 of the Public Acts of 1965, as amended, being §§325.221 to 325.240 of the Michigan Compiled Laws, and entitled "Part 1. Well Construction Code," being~~ **part 1 well construction code,** R 325.1601 to R 325.1676 ~~of the Michigan Administrative Code~~ **promulgated under part 127 water supply and sewer systems of 1978 PA 368, MCL 333.12701 to 333.12715**, except where specific requirements for type III public water supplies prescribed by this part are more restrictive.

R 325.10805 Retroactivity of rules; significant changes or major repairs made to existing well; utilization of well not in compliance with this part.
Rule 805. (1) This part is not retroactive for individual well installations constructed before ~~the effective date of these rules except~~ **January 12, 1978 unless 1 or more of the following conditions exists**:
(a) ~~When water~~ **Water** quality from the well does not meet the state drinking water standards.
(b) ~~Upon a determination by the~~ **The** department **determines** that continued use of a well represents a health hazard~~, or~~**.**
(c) ~~When a well is found to be in violation of previous rules of the department which~~ **A well violates rules that** were in effect at the time of construction.
(2) Significant changes or major repairs made to ~~an existing~~ **a** well ~~after the effective date of these rules~~ **that existed before January 12, 1978** shall conform to ~~the provisions of~~ this part. ~~Those changes shall include, but are not necessarily limited to,~~ **Significant changes include** replacing the casing, modifying the depth of a well, installing new pumping equipment of a different type or of higher capacity, or modifying the pump setting. In general, a significant change or major repair shall be considered to have occurred if the pumping capacity is increased above the original capacity as a result of the work. A significant change or major repair shall not include routine maintenance or incidental repairs.
(3) A ~~supplier of water~~ **public water supply** proposing to utilize water from a well or well field not in compliance with this part may be required to provide continuous treatment of the water in a manner acceptable to the department and shall obtain written approval from the department before utilizing that well or well field as part of a public water supply.
(4) A ~~supplier of water~~ **public water supply** employing a complete treatment system to treat a groundwater source may be granted special consideration by the department for the location and construction of wells used as a raw water source ~~prior to~~ **before** treatment.

R 325.10806 Change in classification of public water supply.

Rule 806. Requirements or criteria ~~prescribed by~~ **of** this part for the various types of public water supplies shall be based on the facilities which the public water supply is intended to serve. If the volume of water used or the type of facilities or number of units served by a public water supply changes in such a way as to cause a change in the classification of a public water supply, the ~~supplier of water~~ **public water supply** shall meet requirements applicable to the new classification.

R 325.10809 Standard isolation area; modification; approval.
Rule 809. (1) Modifications of the standard isolation area, if any, shall be determined for a site based on a study of hydrogeological conditions provided to the department by a ~~supplier of water pursuant to~~ **public water supply under** R 325.10813 and R 325.10814.
(2) The department may require an increase or approve a decrease in the standard isolation area of a well.
(3) Approval of the isolation area shall be obtained from the department before construction of a production well used for drinking or household purposes as part of a public water supply.

R 325.10810 Standard isolation area for type I public water supplies; ownership or control.
Rule 810. (1) A ~~supplier of water of a~~ type I public water supply shall ~~be required to~~ own the approved isolation area except as provided by subrule (2) **of this rule** to prevent use of the property which could result in contamination of the public water supply.
(2) If a ~~supplier of water of a~~ type I public water supply adequately demonstrates to the department that ownership of the isolation area is not possible, adequate control of the isolation area shall be required. Adequate control may be a long-term lease or easement including provisions to prevent use of the isolation area which could result in contamination of the well.

R 325.10812 Location of wells**;** ~~with respect to~~ major sources of contamination.
Rule 812. Wells serving type I and type IIa public water supplies shall be located a minimum distance of 2,000 feet, and wells serving type IIb and type III public water supplies shall be located a minimum distance of 800 feet, from known major sources of contamination, including~~, but not limited to,~~ large scale waste disposal sites, land application of sanitary wastewater or sludges, sanitary landfills, and chemical or waste chemical storage or disposal facilities. ~~Based on hydrogeological studies, the~~ **The** department may require an increase or approve a decrease in the 2,000 foot distance for type I or type IIa public water supplies or the 800 foot distance for type IIb or type III public water supplies **based on a study of hydrogeological conditions or other methods approved by the department for identifying the capture zone of a well**.

R 325.10813 Study of hydrogeological conditions by ~~supplier of water of~~ type I and type IIa public water supplies.
Rule 813. (1) A ~~supplier of water of a~~ type I or type IIa public water supply shall prepare a study of hydrogeological conditions for determination of an isolation area and the acceptability of a ~~proposed~~ **test well** location ~~of a well~~. The study shall be provided to the department and approval obtained.
(2) Previous studies of hydrogeological conditions **that meet the criteria and intent of this rule** ~~shall~~ **may** be considered by the department in determining the scope of or need for a study ~~required by this rule~~.
(3) A study of hydrogeological conditions shall mean investigations and a compilation and evaluation of data necessary to determine the isolation area, **the** acceptability of a **test** well location and construction, and the availability of water at that location. The study of hydrogeological conditions may include the following:

(a) The type of public water supply.
(b) The ~~proposed~~ well capacity **required of the public water supply**.
(c) The ~~proposed~~ **test** well depth and ~~well~~ construction features.
(d) Identification of geological formations, including the thickness and characteristics of the aquifer, the number and thicknesses of protective layers, and if deemed necessary by the department, the areal extent of the protective formations.
(e) Location of the **test** well relative to sources of contamination.
(f) Susceptibility of the ~~area~~ **test well location** to flooding.
(g) Depth to the water table from the established ground surface.
(h) Proximity of the well to surface water.
(i) ~~A yield~~ **An aquifer** test of the well in accordance with R 325.10830.
(j) Water quality analyses.
(k) Identification of the contributing area to a well based on ground water flow simulations using a computer model as approved by the department.
(l) The location of the test well as a latitude and longitude expressed in degrees-minutes-seconds or degrees-decimal degrees to 5 significant digits.
(4) The scope of the hydrogeological study may vary depending ~~up~~on the capacity ~~of the proposed well~~ **required of the public water supply** in relation to the aquifer capacity, the need for a modification of a standard isolation area, or other factors; and may include additional determinations required by the department, such as the general aquifer characteristics and interference relative to other wells **and surface waters** in proximity to the well site.
(5) Where an adverse resource impact, as defined in section 32701 of 1994 PA 451, MCL 324.32701 is likely to occur, the department may require the public water supply to provide for the collection of stream or river flow measurements on stream segments likely impacted by the operation of a well or wells by the public water supply. Flow measurements shall be required on not more than 2 potentially impacted stream segments selected by the department. When required by the department, the public water supply shall provide not fewer than 5 miscellaneous measurements of flow from each stream taken at a frequency of once a month from June to October, and not more than continuous flow monitoring in each stream for 6 months before to 1 year after the well or wells are put in service.

R 325.10814 Studies of ~~suppliers of water of~~ type IIb and type III public water supplies.
Rule 814. If a modification of the standard isolation area is requested by ~~a supplier of water of~~ a type IIb or type III public water supply, the ~~supplier~~ **public water supply** shall submit to the department and obtain approval for a study of hydrogeological conditions consistent with the capacity of the well and the capacity of the aquifer**, and may include identification of the contributing area to a well serving the type IIb or type III public water supply based on groundwater flow simulations using a computer model as approved by the department**.

R 325.10815 ~~Procedures for department approval of a proposed well for~~ **Conversion of a test well to a production well serving** type I and type II public water supplies**; procedures for department approval**.
Rule 815. (1) ~~In reviewing~~ **To receive department approval of** the location and acceptability of a ~~proposed~~ **test** well for **conversion to a production well serving** a type I or type II public water supply, ~~the department shall determine whether~~ the following ~~procedures have been followed by a supplier of water~~ **conditions shall be met**:

(a) Approval has been obtained from the department for ~~each proposed~~ **the** land parcel on which ~~a~~ **the** test well is ~~to be~~ located.
(b) For type I public water supplies, ownership or adequate control as required by R 325.10810 or an option for ownership or adequate control of the required isolation area has been secured **for the land parcel on which the test well is located**.
(c) Where required, a study of hydrogeological conditions **has been conducted that includes identification of the capture zone of the proposed production wells and** has been approved by the department.
(d) Satisfactory ~~yield~~ **aquifer** tests have been completed on the test well or the well capacity has been established to the satisfaction of the department **by other means**.
(e) Water quality analyses show results meeting the state drinking water standards.
(2) When the department finds that a ~~proposed~~ **test** well, its location, and its construction features meet the requirements of this part, the department ~~shall~~ **may** authorize ~~construction of a production well or~~ conversion of ~~a~~ **the** test well to a production well **and, where necessary, the construction of additional production wells at the location**.

R 325.10823 Flowing artesian wells; well construction.
Rule 823. In areas where flowing artesian wells are commonly encountered, the well construction methods proposed by a ~~supplier of water~~ **public water supply** to protect a flowing artesian aquifer and confining strata shall be submitted to the department ~~by the supplier of water~~ and approval obtained prior to the start of construction.

R 325.10828 Casing vents; sampling tap; relief valves.
Rule 828. (1) Casing vents shall be **both of the following**:
(a) Provided on all wells and constructed to prevent the entrance of contaminants into the well.
(b) Extended to the outside atmosphere above the roof level if toxic or flammable gases are present.
(2) Provisions shall be made for collection of **raw** water samples by installation of a proper sampling tap in a convenient location as close to each well as possible. **Provisions shall be made for collection of finished water samples by installation of a proper sampling tap at each entry point to the distribution system.**
(3) Air-vacuum relief valves, where used, shall be constructed to prevent entrance of contaminants into the well.

R 325.10830 ~~Yield~~ **Aquifer** or performance testing requirements.
Rule 830. (1) Each well constructed to serve a public water supply shall ~~be tested for yield~~ **undergo an aquifer test** or performance **test**, by a method approved by the department, after installation of a production well and prior to use of a well to supply water to a waterworks system.
(2) For type I and type IIa public water supplies, ~~yield~~ **aquifer** tests or performance tests shall be performed on the test well or production well. The tests may be required to **do any of the following**:
(a) Determine the adequacy of well depth and development.
(b) Secure water samples for quality analyses.
(c) Determine well capacity and production on a long-term basis.
(d) Determine drawdown.
(e) Select permanent pumping equipment.
(f) Evaluate well efficiency.
(g) Assure proper utilization and protection of groundwater aquifers.

(3) For type IIb and type III public water supplies, ~~yield~~ **aquifer** tests or performance tests of wells shall demonstrate that water can be safely withdrawn from an aquifer in sufficient quantity to provide water for drinking and household purposes and of a quality meeting the state drinking water standards.

R 325.10831 New or reconditioned well; disinfection; water samples.
Rule 831. (1) A new or reconditioned well or pump installation or well facility which is opened for maintenance or inspection shall be pumped to waste until the water is as clear as reasonably possible. Thereafter, the well and pumping equipment shall be properly disinfected.
(2) Before placing a new or reconditioned well or a well facility which is opened for maintenance or inspection into service, **all of the following shall occur:**
(a) Testing shall show the water to be free of chlorine before collection of each bacteriologic sample.
(b) ~~not less~~ **Not fewer** than 2 consecutive water samples for bacteriological analyses shall be collected from the ~~installation~~ **well or well facility 24 hours apart, unless an alternate interval is approved by the department.**
(c) ~~and each~~ **Each** analysis shall not indicate the presence of coliform. Analyses for other contaminants may be required by the department.

PART 9. SURFACE WATER SOURCES

R 325.10902 Applicability; approval of deviations from minimum standards and requirements.
Rule 902. (1) ~~The provisions of this part apply~~ **This part applies** to ~~all~~ public water supplies utilizing surface water sources. ~~These rules are~~ **This part sets** minimum standards and requirements ~~which shall be considered by the department in the issuance of~~ **to be met to receive** permits or approvals **from the department** for waterworks systems or portions ~~thereof~~ **of waterworks systems**. **For purpose of this part, a supplier of a proposed public water supply is considered a public water supply.**
(2) Deviations from the minimum standards and requirements ~~prescribed by~~ **of** this part may be approved by the department ~~upon a showing by an owner of~~ **if** a public water supply **demonstrates** that a deviation will not adversely affect the public health. Deviations from this part shall be by permit condition for type I and type II public water supplies, and in writing by the department for type III public water supplies.

R 325.10904 Retroactivity of rules.
Rule 904. This part is not retroactive for intakes in surface water sources constructed before ~~the effective date of these rules~~ **January 12, 1978**, ~~except upon a determination by~~ **unless** the department **determines** that continued use of the intake or surface water source poses a health hazard.

R 325.10905 ~~Sanitary survey~~ **Assessment** of proposed surface water source.
Rule 905. (1) ~~A sanitary survey~~ **An assessment** of a proposed surface water source shall be performed by the ~~owner of a~~ public water supply. The scope or need for the ~~sanitary survey~~ **assessment** shall be established in advance by the department after consultation with the owner.
(2) All of the following shall be determined for each alternate location of a surface water intake:
(a) The normal water quality.
(b) Any significant variations in water quality.
(c) Any existing or potential hazards to public health.
(d) The suitability of the water for treatment.
(e) The availability of an adequate and dependable source.

(3) Previous ~~sanitary surveys~~ **assessments** of the same surface water source may be considered by the department in determining the scope or need for ~~a sanitary survey~~ **an assessment** required by subrule (1) **of this rule**.
(4) The results of the ~~sanitary survey~~ **assessment** shall be submitted to the department for review, and approval shall be obtained prior to the issuance of a permit for the construction or use of an intake in a surface water source.
(5) Where the water quality of the proposed surface water source is unknown, the department may require sampling and analyses by the ~~supplier of water~~ **public water supply** for a period not to exceed 1 year to determine water quality and suitability of the water for treatment.

PART 10. TREATMENT SYSTEMS AND PUMPING FACILITIES

R 325.11001 Purpose.
Rule 1001. The purpose of this part is to establish requirements ~~to be met by suppliers of water providing~~ **for the** treatment of surface water sources or other sources of water requiring treatment, and to establish requirements for water pumping facilities operated ~~by suppliers of water~~ to provide a continuously adequate quantity of water meeting the state drinking water standards.

R 325.11002 Applicability; approval of deviations from minimum standards and requirements.
Rule 1002. (1) ~~The provisions of this part apply~~ **This part applies** to **public water supplies regarding** subpart H systems, ~~to~~ certain other treatment systems, and ~~to~~ all water pumping facilities. ~~These rules are~~ **This part sets** standards and requirements ~~which shall be considered by the department when issuing~~ **to be met to receive** permits or approvals **from the department** for waterworks systems. **For purpose of this part, a supplier of a proposed public water supply is considered a public water supply.**
(2) Deviations from the minimum standards and requirements ~~prescribed by~~ **in** this part may be approved by the department ~~upon a showing by an owner of a~~ **if the** public water supply **demonstrates** that the deviation will not adversely affect public health.
(3) Any deviations to the requirements for treatment of water sources shall not be in conflict with these rules.

R 325.11006 Rated capacity of ~~a~~ complete treatment system.
Rule 1006. (1) The department shall establish the rated capacity of new or existing complete treatment systems.
(2) The department shall notify the ~~supplier of water~~ **public water supply** of its determination of rated capacity ~~within 1 year from the effective date of these rules or~~ on the permit for a new complete treatment system or on the permit for an existing complete treatment system which undergoes alterations which affect rated capacity.
(3) The rated capacity of the complete treatment system is the smallest of the following rated capacities for each element or unit of the system:
(a) Intake**.** The rated capacity of the intake is the lesser of the intake capacity at the 100 year drought elevation or the intake capacity at the time of the lowest recorded elevation of surface water at the point of intake.
(b) Raw water supply**.** The rated capacity of the raw water supply is the firm capacity of raw water pumping units or the total flow from a system supplying raw water by gravity under minimum source water elevation conditions.

(c) Treatment processes**.** The rated capacity of treatment processes including coagulation, precipitation, sedimentation, and filtration is the established maximum allowable treatment rate. Where less than 4 filters are provided, the rated capacity of the filters is the maximum allowable treatment rate with the largest filter removed from service.
(d) Finished water supply**.** The rated capacity of the finished water supply to the distribution system or storage is the firm capacity of pumping systems or the total flow from a system supplying finished water by gravity under the limiting head condition.

R 325.11007 Retroactivity of rules.
Rule 1007. **R 325.11006 and** R 325.11008 ~~is~~ **are** not retroactive for ~~existing~~ complete treatment systems ~~except upon a determination by~~ **constructed before January 12, 1978, unless** the department **determines** that continued use of the existing system represents a health hazard.

R 325.11010 Applicability of pumping facility.
Rule 1010. **Until January 1, 2016,** R 325.11011 and R 325.11012 apply to all raw water, finished water, and distribution system pumping installations in type I ~~and type IIa~~ public water supplies, except distribution system pumping facilities where service is provided to less than 50 service connections or to less than 200 individuals. **Beginning January 1, 2016, R 325.11011 and R 325.11012 apply to all raw water, finished water, and distribution system pumping installations in type I public water supplies.**

R 325.11011 Pumping facility; capacity.
Rule 1011. ~~(1)~~ A pumping facility shall have sufficient capacity to meet the service area demands with the largest unit removed from service.
~~(2) Compliance with this rule for public water supplies in operation on the effective date of these rules shall be achieved by January 1, 1985.~~

R 325.11015 Pumping facility; pressure.
Rule 1015. (1) All finished water pumping facilities shall be designed to maintain a minimum pressure of 5 psi gauge in all buried suction piping and suction piping subject to flooding.
(2) For finished water pumping facilities taking direct suction from a distribution system, ~~an adequate pressure~~ **a minimum pressure of 35 psi under normal operating conditions and 20 psi during emergencies such as fire fighting** shall be maintained in the distribution system on the low pressure side of the facility.

R 325.11016 Protection of treatment systems and pumping facilities.
Rule 1016. ~~Suppliers of water~~ **Public water supplies** shall take reasonable precautions to protect treatment systems and pumping facilities from trespassers and to prevent introduction of contaminants into the waterworks system.

PART 11. DISTRIBUTION SYSTEMS AND STORAGE TANKS

R 325.11102 Applicability; approval of deviations from minimum standards and requirements.
Rule 1102. (1) ~~The provisions of this part apply to all~~ **This part applies to** public water supplies. ~~These rules are~~ **This part sets** minimum standards and requirements ~~which shall be considered by the department in the issuance of~~ **to be met to receive** permits or approvals **from the department** for

waterworks systems. **For purposes of this part, a supplier of a proposed public water supply is considered a public water supply.**
(2) Deviations from the minimum standards and requirements ~~prescribed by~~ **in** this part may be approved by the department ~~upon a showing by an owner of~~ **if** a public water supply **demonstrates** that a deviation will not adversely affect the public health. Deviations from this part shall be by permit condition for type I public water supplies, and in writing by the department for type II and type III public water supplies.

R 325.11104 Retroactivity of rules.
Rule 1104. This part is not retroactive for ~~existing~~ distribution systems and water storage tanks ~~except upon a determination by~~ **constructed before January 12, 1978, unless** the department **determines** that continued use of a distribution system or storage tank poses a health hazard.

R 325.11105 Capacity of distribution system; fire hydrants; inadequately sized watermains.
Rule 1105. (1) Distribution systems shall have sufficient capacity to meet peak demands, including fire flow demands where fire protection is provided, while continuously maintaining ~~positive pressure adequate for service~~ **a minimum of 35 psi throughout the distribution system under normal operating conditions and 20 psi throughout the distribution system during emergencies such as fire fighting**.
(2) The department may prohibit installation of fire hydrants where watermain capacity, system source capacity, storage capacity, or pressure is inadequate to sustain fire flow demands in addition to normal user demands.
(3) Replacement of inadequately sized watermains with watermains of the same size is prohibited.

R 325.11110 Distribution systems; flushing, disinfection, and water analysis.
Rule 1110. (1) Proper techniques shall be followed during construction to keep water mains clean and dry. New water mains shall be flushed thoroughly before disinfection.
(2) Disinfection of new water mains is required.
(3) Before placing a new water main in service, **all of the following shall occur:**
(a) Before collection of each bacteriologic sample, heavily chlorinated water shall be flushed from the main and appurtenances until the chlorine measurements in the water leaving the main is absent or no higher than that normally maintained in the distribution system.
(b) Not fewer ~~not less~~ than 2 consecutive water samples for bacteriological analysis shall be collected **24 hours apart unless an alternate interval is approved by the department.**
(c) ~~and each~~ **An** analysis shall not indicate the presence of coliform. Analyses for other contaminants may be required if the department has reason to believe that these contaminants are present.
(4) ~~The owner of a~~ **A** public water supply in which all or part of a distribution system is not in year-round service shall ~~disinfect the distribution system before resuming use. Bacteriological sampling and analysis shall be performed and shall show results that meet the state drinking water standards before resuming use~~ **comply with subrules (2) and (3) of this rule before placing the system into service for the season**.

R 325.11111 Distribution system records.
Rule 1111. A ~~supplier of water~~ **public water supply** shall maintain adequate records on the operation of the water distribution system, on the location and type of maintenance performed, and on the type of materials and appurtenances used.

R 325.11117 Storage tanks; disinfection and water analysis.
Rule 1117. (1) Proper techniques shall be followed during construction to keep storage tanks clean and dry.
(2) A finished water storage tank shall be disinfected before initial use and after any internal maintenance or repair activity.
(3) ~~After construction, repair, or maintenance of a storage tank, not less~~ **Before placing a storage tank into service all of the following shall occur:**
(a) Before collection of each bacteriologic sample, heavily chlorinated water shall be flushed from the tank, drain piping, riser and all other appurtenances until the chlorine measurements in the water leaving the tank is absent or no higher than that normally maintained in the storage tank.
(b) Not fewer than 2 consecutive water samples for bacteriological analysis shall be collected **24 hours apart unless an alternate interval is approved by the department.**
(c) ~~and each~~ **An** analysis shall not indicate the presence of coliform. Analyses for other contaminants may be required if the department has reason to believe that these contaminants are present.

R 325.11118 Protection of storage tanks.
Rule 1118. ~~Suppliers of water~~ **Public water supplies** shall take reasonable precautions to protect storage tanks from trespassers and to prevent introduction of contaminants into the distribution system or storage tanks.

PART 12. RELIABILITY

R 325.11202 Applicability; approval of deviations from minimum requirements.
Rule 1202. (1) ~~The provisions of this part apply to all~~ **This part applies to** type I public water supplies and are minimum requirements of the department.
(2) Deviations from the minimum requirements ~~prescribed by~~ **in** this part may be approved in writing by the department. **For purposes of this part, a supplier of a proposed public water supply is considered a public water supply.**

R 325.11203 Study of water supply requirements for type I public water supply; proposal for compliance.
Rule 1203. (1) ~~The owner of a~~ **A** type I public water supply shall conduct a study to determine the quantity of water supply needed for the waterworks system and shall propose a method of compliance in accordance with R 325.11204.
(2) The study required by subrule (1) **of this rule** shall be based ~~upon 10~~ **on 5-year and 20-**year projections of water use by the public water supply. The study shall be updated every 5 years unless **the owner demonstrates that water use projections are stable and** this requirement is waived by the department. **An updated reliability study that is submitted to the department within 2 years after the effective date of this rule may be considered acceptable by the department if the study is based on a 10-year planning period or if any of the items in subrule (3)(b)(vii) to (ix) and (c) of this rule are missing.**
(3) ~~As~~ **At** a minimum, the information presented in this study shall include all of the following:
(a) **Basic planning data, including current population, number of service connections, and equivalent residential units.**
(b) Sufficient water production and consumption data to identify trends for both 5-year and 20-year planning periods, including the following elements:
(i) The present and projected average daily demand.

(~~b~~**ii**) The present and projected maximum daily demand.
(~~e~~**iii**) The present and projected maximum hourly demand.
(~~d~~**iv**) The present and projected peak instantaneous demand for systems using hydropneumatic storage.
(~~e~~**v**) The present and projected fire flow demand.
(~~f~~**vi**) The basis of demand projections.
(vii) Monthly and annual production totals for each source, including water purchased from another public water supply.
(viii) Annual usage totals for water supplied to other public water supplies.
(ix) Annual usage totals for each customer class as determined by the public water supply.
(c) A water shortage response plan for emergencies.
(4) ~~The initial study to determine the quantity of water supply needed, as required by subrule (1), shall be submitted to the department by January 1, 1981, or at the time a new finished water source is proposed.~~
~~(5) If the owner of a type I public water supply fails to provide an adequate study of water supply requirements, the department may determine the quantity of water supply needed for that public water supply and notify the owner of its determination. A permit~~ **Permits** shall not be issued by the department to a public water supply unless an approved study of water supply quantity requirements is available~~ or unless a determination is made by the department pursuant to this subrule~~.

R 325.11204 Required capacity of waterworks systems; ~~compliance date;~~ applicability.
Rule 1204. ~~(1) A supplier of water of a~~ **A** type I public water supply shall provide sufficient capacity in the waterworks system to meet the approved finished water supply requirements. That capacity may be 1 or any combination of the following:
(a) Rated capacity from an approved surface water supply or complete treatment system.
(b) Firm capacity from an approved groundwater supply where firm capacity equals the flow with the largest producing well out of service.
(c) The available capacity obtained under contract and capable of delivery from another approved public water supply.
(d) Finished water storage capacity in excess of the established normal waterworks system requirements.
~~(2) Compliance with this rule by type I public water supplies in operation on the effective date of these rules is required by January 1, 1985. If compliance is achieved prior to January 1, 1985, the requirements of this rule shall be met thereafter.~~
~~(3) Compliance with this rule may be required by the department prior to January 1, 1985, pursuant to an administrative order issued by the director.~~

R 325.11205 Minimum number of wells~~; compliance date~~.
Rule 1205. ~~(1)~~ For type I public water supplies where groundwater is the sole source of water supply, a minimum of 2 wells, with separate pumping units as required, shall be provided.
~~(2) Compliance with this rule for public water supplies in operation on the effective date of these rules is required within 5 years from the effective date of these rules.~~

R 325.11206 Interruption of power service; applicability; compliance date.
Rule 1206. (1) ~~For a~~ **A** type I public water supply~~,~~ **that provides service to 100 or more living units shall provide** a means ~~shall be provided~~ to continuously supply finished water to the entire distribution system during periods when the normal power service is interrupted. **A group living facility with 200 or more beds based on full capacity is equivalent to 100 or more living units and shall comply with**

this rule. Examples of a group living facility include a health care facility, correctional facility, and group home.
(2) ~~This rule does not apply to~~ **Both of the following** type I public water supplies ~~serving less than 50 service connections or serving less~~ **that existed before the effective date of this rule are not required to comply with this rule until January 1, 2016:**
(a) Those that serve 100 or more living units and that serve fewer than 200 individuals**.**~~, or to those public water supplies serving~~
(b) Those that serve 100 or more living units and that serve facilities which are licensed annually by the ~~department~~ **state** including~~, but not limited to, mobile home parks~~ **manufactured housing communities** and health care facilities.
~~(3) Compliance with this rule is required by January 1, 1985.~~

PART 13. CONSTRUCTION PLANS AND SPECIFICATIONS AND PERMITS

R 325.11301 Purpose.
Rule 1301. ~~The purpose of this part is to~~ **This part applies to type I and type II public water supplies. This part** prescribe**s** requirements ~~of suppliers of water of type I and type II public water supplies~~ regarding the submission of plans and specifications or other pertinent information for the construction or alteration of a waterworks system, or a portion ~~thereof~~ **of a waterworks system**, ~~and the procedures for issuance of~~ **to be met to receive** permits by the department for that construction or alteration. **For purposes of this part, a supplier of a proposed type I or type II public water supply is considered a public water supply.**

R 325.11302 Submission of plans and specifications for construction or alteration of waterworks system; guidance material.
Rule 1302. (1) For type I public water supplies, before the construction or alteration of a~~ny~~ waterworks system, or a portion ~~thereof~~ **of a waterworks system**, plans and specifications shall be submitted to the department by a ~~supplier of water or his~~ **public water supply or its** designated agent for review, approval, and issuance of a permit, unless otherwise accepted ~~by subrule (2) of~~ **under** R 325.11304.
(2) A ~~transmittal letter~~ **permit application** shall be submitted with the plans and specifications, shall identify and summarize plans or projects, and, if applicable, shall indicate the authorization of the designated agent for the ~~supplier of water~~ **public water supply**.
(3) ~~A supplier of water shall use the materials set forth in the recommended standards for water works, prepared by the Great Lakes Upper Mississippi board of state sanitary engineers, whenever applicable, as guidance when preparing plans and specifications for submission to the department for a waterworks system, or portion thereof.~~ **Both of the following shall be used, whenever applicable, when preparing plans and specifications:**
(a) Recommended standards for water works, prepared by the Great Lakes Upper Mississippi board of state sanitary engineers under R 325.10113.
(b) Suggested practices for waterworks design, construction, and operation for type I public water supplies, prepared by the Michigan department of environmental quality, water bureau under R 325.10113.

R 325.11303 Engineering report or basis of design; approval.
Rule 1303. (1) If requested by the department, a ~~supplier of water~~ **public water supply** shall submit an engineering report for a significant project or a basis of design, or both, for approval by the department,

before plans and specifications are submitted for the construction or alteration of ~~any~~ **a** portion of a waterworks system.
(2) The department may reject or return any plans and specifications submitted by a ~~supplier of water~~ **public water supply** for the construction or alteration of a waterworks system, or a~~ny~~ portion ~~thereof~~ **of a waterworks system**, unless an engineering report or basis of design, or both, as requested by the department, have been approved.

R 325.11304 Type I and type II public water supplies; construction details and sketch of proposed waterworks system; replacement of watermains and appurtenances; permit.
Rule 1304. (1) ~~Suppliers of water of type~~ **Type** II public water supplies shall submit construction details and an acceptable scaled drawing properly dimensioned showing important aspects of the general layout of a proposed waterworks system, or portion ~~thereof~~ **of a waterworks system**, and shall obtain a permit for the construction or alteration of ~~all~~ source facilities**,** ~~and any treatment facilities which are to be employed for public health purposes~~ **pumping facilities, distribution systems, and storage facilities, and any treatment for public health purposes or treatment such as chemical injection that may affect public health,** prior to construction.
(2) ~~Suppliers of water of type~~ **Type** I public water supplies are not required to submit plans and specifications or to obtain a permit for the replacement of an adequately sized watermain or other appurtenance on a distribution system which does not affect flow or capacity.

R 325.11305 Review of plans and specifications by department.
Rule 1305. (1) Upon receipt of plans and specifications or other pertinent information for the construction or alteration of a waterworks system, or ~~any~~ portion ~~thereof~~ **of a waterworks system**, the department shall review them as soon as practicable to determine their completeness with regard to the minimum requirements specified by these rules, and to determine their adequacy. In making its review, the department shall not approve the plans and specifications unless it determines that the waterworks system, or portion ~~thereof~~ **of a waterworks system**, is designed to protect the public health.
(2) If the department determines that plans and specifications or other pertinent information are incomplete or inadequate, it shall notify the ~~supplier of water~~ **public water supply** or authorized agent and may request the submission of revised plans and specifications or other pertinent information with appropriate corrections or additions. The department shall not grant an approval of these submittals or issue a permit until the plans and specifications or other pertinent information are complete and are judged to be adequate.
(3) The department may designate an agent or representative, including a local health department, for the purposes of reviewing information submitted and issuing permits for type II public water supplies, where appropriate.

R 325.11306 Approval of plans and specifications; permit.
Rule 1306. (1) Upon a determination by the department that the plans and specifications or other pertinent information for the construction or alteration of a waterworks system, or portion ~~thereof~~ **of a waterworks system**, are complete and adequate, the department shall mark the plans or scaled drawing showing approval and shall issue a permit to the ~~supplier of water~~ **public water supply**.
(2) A permit issued ~~pursuant to~~ **under** the act and these rules shall expire unless construction or alteration commences within 2 years from the date of issuance. A ~~supplier of water~~ **public water supply** may apply for a permit extension in accordance with these rules prior to expiration of a permit. A request for a permit extension shall be submitted in writing identifying the project and the number on

the permit issued by the department for which the extension is requested and the reason for requesting the extension.

R 325.11308 Permit terms and conditions.
Rule 1308. The department may attach any term or condition to a permit issued ~~pursuant to~~ **under** the act and these rules to a ~~supplier of water~~ **public water supply** that it deems necessary to assure proper construction, alteration, and operation of a waterworks system, or a portion ~~thereof~~ **of a waterworks system**, to protect the public health.

R 325.11310 ~~Construction program minimizing~~ **Minimizing** operational interference with existing waterworks system**; construction program**.
Rule 1310. The department may request a ~~supplier of water~~ **public water supply** to submit for approval a program for construction which minimizes operational interference with an existing waterworks system, and which allows the ~~supplier of water~~ **public water supply** to maintain continuous service of water to customers or users of that waterworks system in a safe and reliable manner. If requested, the program shall be submitted before commencing construction or an alteration of a waterworks system.

R 325.11311 Revocation of permit.
Rule 1311. The department may revoke a permit if it determines that a ~~supplier of water~~ **public water supply** or ~~a~~ **its** designated agent ~~thereof~~ is not constructing or making an alteration to a waterworks system in accordance with approved plans and specifications, other approved information, or the act. The department shall notify the ~~supplier of water prior to~~ **public water supply before** revocation of the permit and ~~afford him the~~ **provide an** opportunity to take ~~any~~ corrective action as may be required. The department shall revoke the permit and simultaneously order the ~~supplier of water~~ **public water supply** to halt ~~any~~ construction authorized by that permit if the ~~supplier of water~~ **public water supply** does not effect the corrections within a reasonable period of time.

PART 14. CROSS-CONNECTIONS

R 325.11402 Compliance with regulations and local codes.
Rule 1402. A connection with a public water supply system shall comply with existing laws, ordinances, and rules including:
(a) ~~Act No. 266 of the Public Acts of 1929, as amended, being §§338.901 to 338.917 of the Michigan Compiled Laws.~~ **The state plumbing act, 2002 PA 733, MCL 338.3511 to 338.3569.**
(b) Local ordinances or rules providing acceptable protection against cross connections.

R 325.11404 Local cross connection control programs.
Rule 1404. (1) A water utility shall develop a comprehensive control program for the elimination and prevention of all cross connections. The plan for the program shall be submitted to the department for review and approval ~~within 1 year after the effective date of these rules~~. When the plan is approved, the water utility shall implement the program for removal of all existing cross connections and prevention of all future cross connections.
(2) The program shall include ~~but not be limited to~~ all of the following:
(a) A complete description of the method of administering the program, including the designation of inspection and enforcement agency or agencies. The local authority for implementation of the program shall be indicated, preferably by ordinance.

(b) A time schedule for inspection and reinspection of all water utility customers' premises for possible cross connections. The periodic reinspection shall be to ascertain ~~whether or not~~ **if** safe air gaps or required protective devices are in place and in working order.
(c) A description of the methods and devices, as approved by the department, used to protect the public water supply.

R 325.11405 Corrections and protective devices.
Rule 1405. (1) A user of public water supply shall obtain written approval by the water utility or authorized inspection agency of any proposed corrective action or protective device before using or installing it.
(2) The total time allowed for completion of the necessary corrections shall be contingent upon the degree of hazard involved and include the time required to obtain and install equipment. If ~~he~~ **the** cross connection has not been removed, after a reasonable period of time, the water utility shall physically separate the public water supply from the onsite piping system in ~~such~~ a manner that the 2 systems cannot again be connected by any unauthorized person.
(3) A water utility shall report annually to the department on the status of the cross connection control program on a form provided by the department.

PART 15. OPERATION REPORTS AND RECORDKEEPING

R 325.11501 Purpose.
Rule 1501. The purpose of this part is to establish requirements of certain ~~suppliers of water~~ **public water supplies** for the periodic submission of operation reports and for the retention of certain records as required by the provisions of the act and the federal act.

R 325.11502 Monthly operation reports ~~required from suppliers of water~~ **of public water supplies** employing treatment.
Rule 1502. (1) A ~~supplier of water of a~~ community water ~~system~~ **supply** where treatment is employed or ~~of~~ a noncommunity water ~~system~~ **supply** where treatment is employed for public health purposes**, or treatment such as chemical injection that may affect public health,** shall prepare an operation report on a form provided by the department for each month of operation. The report shall identify areas where data entry is required under R 325.10719e, R 325.10719f, R 325.10720, and R 325.10720a and shall include all of the following information:
(a) General operation data, including turbidity determinations.
(b) A summary of samples analyzed, including distribution system sampling and residual disinfectant concentration.
(c) Information on daily treatment system pumpage.
(d) Information on chemical application.
(e) Analyses of general parameters relating to the quality of the treated drinking water.
(2) The operation report shall be submitted to the department during the month following the month for which the operation report was prepared, unless otherwise ~~noted~~ **required** in part 7 of these rules.

R 325.11504 Annual reports.
Rule 1504. (1) ~~At the end of the first calendar year after the effective date of these rules and each subsequent year, each~~ **A** type I public water supply which does not submit a monthly operation report shall submit an annual report on a form provided by the department. The department may require

certain type II public water supplies to submit annual reports. The report shall include~~, but not necessarily be limited to,~~ a summary of water pumpage and water use.
(2) The ~~supplier of water~~ **type I public water supply** shall submit the annual report to the ~~division~~ **department** on or before March 31 following the year ~~for which~~ **covered by** the report ~~is prepared~~.

R 325.11505 Additional reports required by department.
Rule 1505. (1) The department may require a ~~supplier of water~~ **public water supply** to submit reports required ~~pursuant to~~ **under** this part on a more frequent basis if the department finds that discrepancies, violations, or other problems are or may be occurring based on the department's review of a monthly or annual operation report or based on a sanitary survey, on-site inspection, surveillance observation, or special investigation conducted by the department.
(2) The department may require a ~~supplier of water~~ **public water supply** to submit other reports as it deems necessary to evaluate the adequacy of the public water supply.

R 325.11505a Submission of C * T calculations.
Rule 1505a. A ~~supplier of water who~~ **public water supply that** employs a disinfectant shall, within 6 months of a written request from the department, submit a determination of the C*T calculations. The ~~supplier of water~~ **public water supply** shall submit the supporting data as necessary for the department to determine compliance with the provisions of R 325.10611a(2)(a).

R 325.11506 Retention of ~~R~~**r**ecords**; generally.**
Rule 1506. (1) A ~~supplier of a~~ community or noncommunity water ~~system~~ **supply** shall retain, on its premises or at a convenient location near its premises, all of the following records:
(a) Records of bacteriological analyses that are required under part 7 of these rules, which shall be kept for not less than 5 years.
(b) Records of chemical analyses that are required under part 7 of these rules, which shall be kept for not less than 10 years.
(c) Records of **microbiological analyses and** turbidity analyses that are required under part 7 of these rules, which shall be kept for not less than ~~3~~ **5** years.
(d) Records of radiological analyses that are required under part 7 of these rules, which shall be kept for not less than 10 years.
(e) Original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, department determinations, and any other information that is required under R 325.10604f(2) to ~~(4)~~ **(5), R 325.10410, and R 325.10710a to R 325.10710c**, which shall be retained for not less than 12 years.
(f) Results of the disinfection profile and benchmark, which shall be retained indefinitely.
(g) Copies of monitoring plans developed under these rules shall be kept for the same period of time as the records of analyses taken under the plan are required to be kept under this subrule, except as specified elsewhere in these rules.
(2) Actual laboratory reports for chemical, bacteriological, turbidity, disinfection profile and benchmark, and radiological analyses shall be kept; however, the analyses data may be transferred to tabular summaries if all of the following information is included:
(a) The date, place, and time of sampling and the name of the person who collected the sample.
(b) Identification of the sample as a routine distribution system sample, check sample, raw or treated water sample, or other special purpose sample.
(c) The date of the analysis.
(d) The laboratory and the person who was responsible for performing the analysis.
(e) The analytical technique or method used.

(f) The results of the analysis.
(3) Records of action taken by the ~~supplier~~ **supply** to correct violations of the state drinking water standards shall be kept for not less than 3 years after the last action taken with respect to the particular violation.
(4) Copies of any written reports, summaries, or communications which relate to sanitary surveys of the public water supply and which were conducted by the public water supply itself, by a private consultant, by the ~~division~~ **department**, or by any local, state, or federal agency shall be kept for not less than 10 years after completion of the sanitary survey involved.
(5) Records that involve a variance or an exemption that was granted to a public water supply shall be kept for not less than 5 years after the expiration date of the variance or exemption.
(6) Records that involve any emergency or public notification regarding a public water supply shall be kept for not less than 3 years after the emergency or public notification.
~~(7) A subpart H system that employs conventional filtration or direct filtration treatment and that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering process shall collect and retain on file all of the following recycle flow information for review and evaluation by the department:~~
~~(a) Copy of the recycle notification and information submitted to the department under 40 CFR §141.76(b), which is adopted by reference. The adopted material is available from the superintendent of documents at the address in R 325.10116(b) for a cost of $61.00 at the time of adoption of these rules. The adopted material is available for inspection, or copies are available at no cost from the offices of the department at the address in R 325.10116(a).~~
~~(b) A list of all recycle flows and the frequency with which they are returned.~~
~~(c) The average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes.~~
~~(d) The typical filter run length and a written summary of how filter run length is determined.~~
~~(e) The type of treatment provided for the recycle flow.~~
~~(f) Data on the physical dimensions of the equalization or treatment units, or both, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and frequency of use, and frequency at which solids are removed, if applicable.~~

R 325.11507 Retention of records; filterbackwash.
Rule 1507. A subpart H supply that employs conventional filtration or direct filtration treatment and that recycles spent filter backwash water, thickener supernatant, or liquids from dewatering processes shall collect and retain on file all of the following recycle flow information for review and evaluation by the department:
(a) Copy of the recycle notification and information submitted to the department under 40 CFR §141.76(b), (2008), which is adopted by reference. The adopted material is contained in Title 40 CFR Parts 136 to 149 which is available for purchase for $64.00 at the time of adoption of these rules from the superintendent of documents at the address in R 325.10116(b). The adopted material is available for inspection and a copy is available at no cost from the offices of the department at the address in R 325.10116(a).
(b) A list of all recycle flows and the frequency with which they are returned.
(c) The average and maximum backwash flow rate through the filters and the average and maximum duration of the filter backwash process in minutes.
(d) The typical filter run length and a written summary of how filter run length is determined.
(e) The type of treatment provided for the recycle flow.

(f) Data on the physical dimensions of the equalization or treatment units, or both, typical and maximum hydraulic loading rates, type of treatment chemicals used and average dose and frequency of use, and frequency at which solids are removed, if applicable.

R 325.11508 Retention of records; enhanced treatment for Cryptosporidium.
(1) Subpart H supplies that are subject to the enhanced treatment for Cryptosporidium provisions in R 325.10611d, also called "supplies" in this rule, shall keep results from the initial round of source water monitoring under 40 CFR 141.701(a), as adopted by reference in R 325.10720b, and the second round of source water monitoring under 40 CFR 141.701(b), as adopted by reference in R 325.10720b, until 3 years after bin classification under R 325.10611e for the particular round of monitoring.
(2) Supplies shall keep a notification to the department that they will not conduct source water monitoring due to meeting the criteria of 40 CFR 141.701(d), as adopted by reference in R 325.10720b, for 3 years.
(3) Supplies shall keep the results of treatment monitoring associated with microbial toolbox options under R 325.10611i to R 325.10611m for 3 years.

R 325.11509 Retention of records; groundwater supply rules.
Rule 1509. In addition to the requirements of R 325.11506, a groundwater supply subject to R 325.10612 shall maintain all of the following information in its records:
(a) Documentation of corrective actions shall be kept for a period of not less than 10 years.
(b) Documentation of notice to the public as required under R 325.10408c shall be kept for a period of not less than 3 years.
(c) Records of decisions under R 325.10739(1)(e)(ii) and records of invalidation of fecal indicator-positive groundwater source samples under R 325.10739(3) shall be kept for a period of not less than 5 years.
(d) For consecutive supplies, documentation of notification to the wholesale supply or supplies of total-coliform positive samples that are not invalidated under R 325.10707a shall be kept for a period of not less than 5 years.
(e) For groundwater supplies, including wholesale supplies, that are required to perform compliance monitoring under R 325.10739a all of the following shall be kept:
(i) Records of the department-specified minimum disinfectant residual shall be kept for a period of not less than 10 years.
(ii) Records of the lowest daily residual disinfectant concentration and records of the date and duration of any failure to maintain the department-prescribed minimum residual disinfectant concentration for a period of more than 4 hours shall be kept for a period of not less than 5 years.
(iii) Records of department-specified compliance requirements for membrane filtration and of parameters specified by the department for department-approved alternative treatment and records of the date and duration of any failure to meet the membrane operating, membrane integrity, or alternative treatment operating requirements for more than 4 hours shall be kept for a period of not less than 5 years.

PART 16. GENERAL PLANS

R 325.11601 Purpose.

Rule 1601. ~~It is the purpose of this part to~~ **This part** establish**es** requirements of certain ~~suppliers of water~~ **public water supplies** for the submission and updating of waterworks system general plans to satisfy the requirements of subsection (1) of section 4 of the act.

R 325.11602 Type I and type II public water supplies; submission of general plans to department.
Rule 1602. (1) ~~General plans~~ **A current general plan** for type I public water supplies **that address the pertinent requirements of this part** shall be submitted to the department**.** ~~within 2 years after the effective date of these rules, except that this subrule shall not apply to those~~ **Neither of the following** type I public water supplies **that existed before the effective date of this rule is required to comply with this subrule until January 1, 2016.**
(a) Those serving less than 50 service connections or less than 200 persons**.** ~~and those~~
(b) Those serving facilities which are licensed annually by the ~~department~~ **state**, including~~, but not limited to, mobile home parks~~ **manufactured housing communities** and health care facilities.
(2) The department, by written notice, may require ~~suppliers of water of~~ specific type II public water supplies to provide ~~a copy of~~ a general plan ~~of a waterworks system~~. ~~A supplier of water~~ **The public water supply** so notified shall provide ~~a copy of~~ a general plan to the department within 1 year after receipt of the written notice.

R 325.11603 ~~Acceptability of previous general plans; updating~~ **Updating** requirements.
Rule 1603. (1) ~~Suppliers of water~~ **Public water supplies** having previously provided a general plan to the department meet the requirements of this part unless the department determines that the plans previously submitted are inadequate **or outdated**.
(2) ~~The department may require the updating of a waterworks system general plan required pursuant to this part on a periodic basis by providing written notice to the supplier of water. The supplier of water so notified shall provide an updated general plan to the department~~ **Upon receiving written notice from the department, public water supplies shall provide an updated general plan** within 6 months ~~after receipt of the written notice~~.

R 325.11604 Contents of general plans **for all applicable systems**.
Rule 1604. ~~(1) The required~~ **The** general plan for a waterworks system shall contain~~, at a minimum, all of the following information, where pertinent~~ **a description of the waterworks system, including both of the following**:
(a) The general layout of the entire waterworks system, including treatment systems and distribution systems, and the location of valves, hydrants, storage tanks, watermains, ~~and their size,~~ pumps, wells, and pumping facilities.
~~(b) An identification of locations in the distribution system where the pressure may be less than 20 psi during peak flow.~~
~~(c) An identification of the entire area served or proposed to be served by the public water supply.~~
(~~d~~**b**) Rated capacity of the waterworks system, including capacity of the developed water source, treatment system, storage tanks, pumping facilities, and equipment to maintain system reliability.
~~(2) A supplier of water may include with the general plan additional information, including, but not necessarily limited to, the number of service connections, fire fighting capabilities, location of access roads, chemical delivery features, standby power, laboratory facilities, location of sampling stations, and a description of the meter system.~~

R 325.11605 Community water supplies that have distribution system intended to provide fire protection; additional general plan requirements.

Rule 1605. The general plan for a waterworks system that has a distribution system intended to provide fire protection purposes shall include all of the following information:
(a) A hydraulic analysis of the distribution system showing pressure contours under peak demands.
(b) An inventory of water main by size and material and age.
(c) Service area maps including existing and future service area boundaries.

R 325.11606. Publicly owned or operated community water supplies; additional general plan requirements.
Rule 1606. (1) The general plan for a waterworks system that is publicly owned or operated shall include a capital improvements plan that identifies water system needs for 5-year and 20-year planning periods. A publicly owned or operated community water supply that existed before the effective date of this rule is not required to comply with this subrule until January 1, 2016.
(2) A publicly owned or operated community system may include additional information with the general plan, including the current reliability study, annual pumpage report, sample siting plan, source water protection plan, water conservation/efficiency program, waterworks operation and maintenance programs, regional planning documents, and relevant zoning and land use plans for the service area.

PART 17. OWNERSHIP OF PUBLIC WATER SUPPLIES

R 325.11703 Applicability **and general requirements**.
Rule 1703. (1)~~ After January 4, 1979, these rules shall apply to all privately owned type I public water supplies, except those serving facilities which are licensed annually by the department, including, but not limited to, mobile home parks and health care facilities.~~ **Except as noted in this part, this part applies to both of the following:**
(a) A private owner that proposes to construct a privately owned type I public water supply.
(b) A privately owned type I public water supply.
(2)~~ This part applies to all type I public water supplies which are proposed to be constructed after the effective date of these rules, and to any proposed substantial additions or modifications to a type I public water supply which is privately owned on the effective date of these rules, if the department determines that the operation of that public water supply does not meet the requirements of the act or these rules.~~ **The department shall approve a new privately owned public water supply only by issuance of a permit. To receive from the department a permit to construct a type I public water supply, the owner of the proposed type I public water supply shall perform all of the following:**
(a) Submit to the department the information required under part 13 of these rules.
(b) Submit to the department proof of refusal to accept ownership or operational responsibility of that public water supply from the governing entity under whose jurisdiction the public water supply is included, as required under R 325.11705.
(c) On a form provided by the department, stipulate to conditions required by the department to ensure the public water supply will meet the requirements of the act and these rules. At a minimum, the conditions shall include all of the following:
(i) Supply water to the public according to the act and these rules and transfer the supply to the governmental entity by an acceptable agreement between the parties as required under R 325.11706.
(ii) Establish and maintain an escrow fund under R 325.11707 to R 325.11708.

(iii) Provide or obtain easements, or isolation areas, or both, and abandon wells as required under R 325.11709.
(iv) Provide service connections to not more than the number provided for in the permit to construct as required under R 325.11710.
(v) Receive department approval before transferring ownership of the supply as required under R 325.11711.
(vi) Provide contact information of system operation personnel as required under R 325.11712.
(3) A privately owned public water supply whose classification under part 5 of these rules changes to type I shall comply with subrule (2)(b) and (c) of this rule.
(4) A new owner of a privately owned type I public water supply shall comply with subrule (2)(b) and (c) of this rule as required under R 325.11711.

R 325.11707 Escrow fund.
Rule 1707. (1) ~~In accordance with section 10 of the act, the owner of a type I public water supply, which is proposed to be privately owned, shall establish~~ **The purpose of** a continuing cash escrow fund ~~prior to the issuance of a permit, which fund shall~~ **is to** be available to the department for immediate repair**s, improvements, operations,** or maintenance of the public water supply if the owner fails to meet the responsibilities under the act and these rules.
(2) The amount of the escrow fund required shall be calculated on the basis of ~~$100.00~~ **$500.00** per living unit proposed to be served by the public water supply, but in no case shall the escrow fund amount be less than ~~$5,000.00~~ **$10,000.00**, or exceed $50,000.00.
(3) Upon establishment of a written agreement between the ~~owner of a~~ privately owned public water supply and the governing body of a city, village, or township which establishes a date certain by which the privately owned public water supply ownership shall be transferred to that governing body, the department may reduce the amount of the required escrow fund.
(4) When the ownership of a privately owned public water supply is transferred ~~to the governing body of a city, village, or township~~, the department shall authorize return of the escrow fund and accrued interest to the owner ~~of the privately owned waterworks system~~ **from which the public water supply was transferred**.
(5) When additional living units are added, a type I public water supply with an established escrow fund shall recalculate the escrow amount based on the sum of existing and proposed number of living units and increase its escrow fund accordingly.

R 325.11708 Removal **and replacement** of funds from escrow account.
Rule 1708. (1) Upon a determination by the department that removal of funds from an escrow account is required, only the director or his designated agent may remove funds from the escrow account to make the necessary corrections.
(2) ~~It is the responsibility of the~~ **The** owner of a privately owned ~~waterworks system~~ **type I public water supply** ~~to~~ **shall** replace all funds removed from the account by the director or his designated agent as required for needed improvements or corrections to the waterworks system within 90 days after removal of the funds to maintain the account at the original level.
(3) If the financial institution that created the escrow fund sends notice that it intends to terminate the escrow fund, the public water supply shall obtain an alternate escrow fund within 30 days after termination.

R 325.11711 Transfer of ownership of a privately owned ~~waterworks system~~ **type I public water supply**.

Rule 1711. **(1)** If ownership of a privately owned ~~waterworks system~~ **type I public water supply** is transferred to another private owner, the former owner shall notify and receive approval from the department ~~not less than 90 days prior to~~ **before** the change in ownership. ~~The escrow fund established for that waterworks system shall be maintained by the new owner.~~
(2) The new owner shall comply with R 325.11703(2)(b) to (c).

R 325.11713 ~~Approval of a privately owned public water supply~~ **Rescinded**.
~~Rule 1713. The department shall approve a privately owned public water supply only by issuance of a permit, and in addition, shall stipulate with the owner for entry of a consent order outlining the specific operation and maintenance requirements of that waterworks system and the amount of the escrow fund required. If the owner of the privately owned waterworks system refuses to stipulate to the entry of a consent order, the department shall not issue a permit for the privately owned waterworks system.~~

PART 19. EXAMINATION AND CERTIFICATION OF OPERATORS

R 325.11904 Notification of change in classification.
Rule 1904. (1) A ~~supplier of water of a~~ public water supply affected by a change in classification shall be notified by the department by mail. A change in classification by the department shall be effective 6 months after the date of the next applicable examination.
(2) The classification of a newly constructed waterworks system shall be effective at the time of initial operation.

R 325.11906a Restricted certificates for existing operators.
Rule 1906a. (1) The owner of a waterworks system classified for the first time as a result of these revised rules as a class F-5, class D-5, or class S-5 system may designate to the department an operator currently employed by the owner as the certified operator in charge of the system. ~~Such~~ **The** designation shall be made within 90 days after notification by the department that the system has been classified as such or ~~within 2 years from the effective date of these revised rules, whichever date comes first~~ **by December 8, 2002**.
~~(a)~~ If the class F-5, class D-5, or class S-5 system has an acceptable record of compliance with the safe drinking water act requirements and provided that the designated operator attends a specific department approved training program, the department shall issue a site specific, restricted certification to the operator designated in ~~subrule (1) of this rule~~ **this subrule**.
(2) The owner of a waterworks system reclassified as a result of these revised rules may designate to the department a properly certified operator currently employed by the owner as the operator in charge of the system and any other properly certified operator or operators currently employed by the owner as a shift operator or operators. ~~Such~~ **The** designation shall be made within 90 days after notification by the department that the system has been reclassified or ~~within 2 years from the effective date of these revised rules, whichever date comes first~~ **by December 8, 2002**.
~~(a)~~ The department shall issue site specific, restricted certification to the operator or operators designated in ~~subrule (2) of this rule~~ **this subrule**.
(3) The owner of a manufactured housing community waterworks system may designate to the department an operator currently employed by the owner as the certified operator in charge of the system or portion of the system. ~~Such~~ **The** designation shall be made within 90 days after notification by the department of the system's classification or reclassification as such or ~~within 2 years from the effective date of these revised rules, whichever date comes first~~ **by December 8, 2002**.

~~(a)~~ Provided that the designated operator attends a specific department approved training program, the department shall issue site specific, restricted certification to the operator designated in ~~subrule (3) of this rule~~ **this subrule**.

(4) **With the concurrence of the advisory board, the department may issue site specific, restricted certification to an operator on a case-by-case basis.** An operator issued restricted certification under this rule is only authorized to operate the waterworks system or portion of the system that is designated on the restricted certificate issued to him or her, except such operator may operate any other waterworks system or portion of a system for which he or she holds certification ~~for~~. An operator with a restricted certification is subject to the same requirements for performance as other certification classes and the certificate may be suspended or revoked or the operator placed on probation in accordance with R 325.11917.

R 325.11908 Advisory board; powers and duties.

Rule 1908. (1) The advisory board shall meet not less than twice each year at designated times and places and shall advise the department in program implementation and any revisions to the operator certification program. The advisory board shall assist the department in examining all persons making application for certification who meet the minimum requirements established by the department pursuant to R 325.11911. The advisory board shall schedule at least 1 annual examination for treatment system operators in the F-1, F-2, F-3, F-4 and D-1, D-2, D-3, D-4 classes and at least 1 annual examination for the distribution system operators in the S-1, S-2, S-3, S-4 classes, and shall provide public notice of the date, time, and place for each examination not less than 90 days before the date set for the examination.

(2) The advisory board shall approve a protocol for the examination of operators in class F-5, class D-5, and class S-5 systems.

(3) After review of the application and the results of the examination, the department shall issue or deny an applicant a certificate in the appropriate public water supply classification.

(4) The advisory board shall evaluate and either approve or disapprove continuing education training, shall categorize such training as "technical", "managerial," or "other" and shall determine the continuing education training hour value in each category. All continuing education training approved by the advisory board shall relate to the duties, responsibilities, operation, maintenance, or supervision of a drinking water system.

R 325.11913 ~~Equivalent certificate~~ **Rescinded**.

~~Rule 1913. (1) The department shall prepare an application form to be used by applicants for an equivalent certificate. A waterworks system operator issued certification pursuant to the provisions of R 325.1009 of the Michigan Administrative Code that does not hold a current certificate, and who submits a complete application for an equivalent certificate within 1 year after the application form becomes available from the department may, under the conditions specified in subrule (2) of this rule, be issued a new certificate of comparable classification. Equivalent certificates for an individual who holds multiple certificates shall only be issued for the higher class within the appropriate waterworks system category.~~

~~(2) The department shall, on the basis of an evaluation of the information provided on the application form for an equivalent certificate, determine if the equivalent certificate is to be issued. An individual has no longer than 2 years from the effective date of these rules to complete the required continuing education requirements as prorated from the certificate's expiration date. The department shall issue a certificate upon approval. A restricted certificate is valid only for the waterworks system designated on the certificate.~~

~~(3) Equivalent certificates issued shall state all of the following information:~~

~~(a) The certified individual's name.~~
~~(b) The certification class or classes.~~
~~(c) The date of certificate expiration.~~
~~(d) The official certificate number. In addition, a restricted certificate shall name the water system for which the certificate is valid.~~

R 325.11915 Renewal requirements.
Rule 1915. (1) The department shall renew a certificate on a 3-year cycle. To renew a certificate, a certificate holder shall submit, to the department, an application for renewal on a form provided by the department.
2) To have a certificate renewed, a holder of **a drinking water certificate shall satisfy the minimum criteria for continuing education requirements as required in the following table:**

Table 1. Minimum requirements for continuing education

Highest certification level held	**Minimum number of continuing education training hours required to renew**	**Minimum number of continuing education training hours categorized as "technical", "managerial," or both ***
1 or 2	**24**	**18**
3	**24**	**12**
4	**12**	**6**
5	**9**	**no minimum**

*** A certificate holder is not required to meet the requirements of this column to renew a certificate that was issued on or before the effective date of this rule. A certificate holder shall meet the requirements of this column to renew a certificate that was issued after the effective date of this rule.**
~~an F-1 or F-1 (restricted), F-2 or F-2 (restricted), F-3 or F-3 (restricted), D-1 or D-1 (restricted), D-2 or D-2 (restricted), D-3 or D-3 (restricted), S-1 or S-1 (restricted), S-2 or S-2 (restricted), S-3 or S-3 (restricted) certificate shall have completed, during the renewal cycle, not less than 24 hours of advisory board-approved training or continuing education, regardless of the category or class or number of certificates held. To have a class F-4 or F-4 restricted), D-4 or D-4 (restricted), or S-4 or S-4 (restricted) certificate renewed, a certificate holder shall have completed, during the renewal cycle, not less than 12 hours of advisory board-approved training or continuing education. To have a class F-5, class D-5 or class S-5 certificate renewed, a certificate holder shall have completed not less than 9 hours of advisory board-approved training or continuing education during the renewal cycle.~~
~~3) To have a certificate issued under R 325.11906a(1) renewed, a certificate holder shall have completed not less than 9 hours of advisory board-approved training or continuing education during the renewal cycle and the water system shall have an acceptable record of compliance with safe drinking water act requirements.~~
~~4) To have a certificate issued under R 325.11906a(2) or (3) renewed, a certificate holder shall meet any applicable renewal requirements described in subrules (1) and (2) of this rule.~~
(~~5~~**3**) Types of education or training programs that may be approved include~~, but are not limited to~~ **any of the following**:
(a) Association programs that are sponsored by any of the following entities:
(i) American water works association.
(ii) Township, municipal, and county organizations.
(iii) Professional and trade organizations.

(iv) National rural water association.
(b)~~ Home study courses~~ **Distance learning**, such as videotapes, ~~audiocassettes, and~~ **DVDs,** correspondence courses**, and online courses**.
(c) Private contractor technical courses.
(d) University, college, and community college courses.
(e) Department and environmental protection agency sponsored training programs.
(f) Training sponsored by nationally recognized organizations.
(g) Water utility in-service training.
(~~6~~**4**) A holder of a certificate shall be responsible for renewal of a certificate regardless of notification.
(~~7~~**5**) A certificate holder shall keep his or her own record of approved training, education, and work experience and be prepared to present proof of that training, education, and experience if required by the department.
(~~8~~**6**) The failure of an applicant for renewal to meet the requirements of this subrule and subrules (1) to (~~7~~**5**) of this rule shall constitute grounds for refusing to renew a certificate.
(~~9~~**7**) For a holder of multiple certificates within a category, the department shall only renew the certificate representing the higher class within a waterworks system category.
(~~10~~**8**) A holder of a certificate who is not eligible for renewal or who has been refused renewal pursuant to ~~the provisions of~~ subrules (1) to (~~9~~**7**) of this rule may apply for examination pursuant to ~~the provisions of~~ R 325.11910.
(~~11~~**9**) A holder of a certificate who has not met the continuing education requirements of subrule (2) of this rule for his or her certification may be issued a certificate for the classification within the same category for which the continuing education requirements have been met. A certificate that is not renewed shall expire.

R 325.11917 Suspension or revocation of certificates.
Rule 1917. (1) After notice and a hearing before the advisory board, the director may **deny exam application to an individual or** place on probation, suspend, or revoke the certificate of an operator if the director determines that any of the following provisions apply:
(a) The operator is incompetent or unable to properly perform the duties of a waterworks system operator.
(b) ~~The~~ **An individual or** operator has committed fraud or has falsified an application, **examination,** report, or record with respect to ~~his or her application or with respect to~~ a water supply.
(c) The operator has been negligent in the discharge of properly assigned duties or responsibilities with respect to a water supply.
(d) An individual or operator has impersonated or misrepresented a certified operator or falsified a certificate of completion or training record.
(2) The department shall provide a notice of probation, suspension, or revocation, in writing, to the operator and to the owner of the public water supply where the operator is employed.
(3) The department shall not accept an application for examination during the time period of suspension for an operator who has a suspended certificate.
(4) Upon recommendation of the advisory board, the director shall determine the length of suspension of a certificate.
(5) Renewal of a suspended certificate is allowed if the applicant meets all renewal requirements including the training and continuing education requirements; however, the renewal does not affect the terms of suspension in any way.
(6) The department shall not accept an application for examination from an operator for a period of 5 years from the effective date of the revocation of certificate.

(7) Upon recommendation of the advisory board, the director may place a certified operator on probation for up to 2 years in accordance with the provisions of subrule (1) of this rule. A certificate holder who is placed on probation is subject to the terms and conditions of the order of probation.

PART 21. APPROVAL OF CHEMICALS AND OTHER MATERIALS

R 325.12102 Approval of chemicals and other materials.
Rule 2102. (1) Approval by the department is required for all chemicals, coatings or paints, proprietary products, and similar materials of ~~whatever~~ **any** description, that are used or are proposed for use in, or in contact with, drinking water at any point in the waterworks system from the source to the ultimate point of distribution of the water.
(2) The ~~supplier of water is responsible for determining~~ **public water supply shall determine** that approval for a chemical or material has been granted by the department and ~~determining~~ **determine** the special conditions or limitations under which that approval was granted.
(3) All chemicals or components that may come in contact with water intended for use in a public water supply shall meet ANSI/NSF standards which are hereby adopted by reference. The department adopts by reference ANSI/NSF standards 60-2005 Drinking Water Treatment Chemicals (September 11, 2005) as amended by 60-2005 Addendum 1 (October 24, 2006) and 61-2008 Drinking Water System Components (December 19, 2008). The adopted material is available from NSF at 789 North Dixboro Road, Ann Arbor, MI 48105, telephone 734-827-6817, Internet address http//www.nsf.org for a cost at the time of adoption of these rules of $325.00 for 60-2005, $45.00 for 60-2005 Addendum 1 and $325.00 for 61-2008. The adopted material is available for inspection at the offices of the department at 525 W Allegan Street, Lansing, Michigan.

PART 23. ~~CONTINGENCY PLANS~~ **EMERGENCY RESPONSE PLANS**

R 325.12301 Purpose.
Rule 2301. The purpose of this part is to establish requirements of ~~suppliers of water of~~ type I public water supplies and certain type II public water supplies to prepare ~~contingency for plans for implementation in the event of emergencies~~ **plans and procedures and identify personnel and equipment that can be implemented or utilized in the event of an emergency, including a terrorist or other intentional attach on the public water supply**.

R 325.12302 Preparation; timetable; exceptions.
Rule 2302. (1) Unless specifically waived by the department, ~~suppliers of water of~~ **a** type I public water ~~supplies~~ **supply**, including ~~suppliers of water purchasing~~ **a type I public water supply that purchases** water from another ~~supplier of water~~ **public water supply**, shall prepare, or cause to be prepared, ~~contingency plans for waterworks systems~~ **an emergency response plan** ~~within 2 years after the effective date of these rules~~. **Neither of the following** ~~This subrule shall not apply to~~ type I public water supplies **that existed before the effective date of this rule is required to comply with this subrule until 3 years after the effective date of this rule:**
(a) Those serving less than 50 service connections or less than 200 individuals**.** ~~or those type I public water supplies~~
(b) Those serving facilities which are licensed annually by the ~~department~~ **state**, including~~, but not limited to, mobile home parks~~ **manufactured housing communities** and health care facilities.

(2) The department may require ~~suppliers of water of~~ certain type II public water supplies to prepare ~~contingency plans~~ **emergency response plans** in accordance with the requirements of this part.
(3) If a ~~supplier of water~~ **public water supply** has an existing ~~contingency~~ **emergency response** plan, it ~~may~~ **shall** be updated **on the schedule contained in the plan** to include any requirements specified by this part~~, and upon updating, shall be deemed to meet the requirements of this part~~.

R 325.12303 Contents.
Rule 2303. (1) ~~A contingency plan prepared by a supplier of water~~ **An emergency response plan** shall, ~~as~~ **at** a minimum, outline a program for rapid correction or mitigation of emergencies **and shall include actions, procedures, and an identification of equipment which can significantly lessen the impact of terrorist acts or other intentional actions on the public health and the safety and supply of drinking water provided to the public**. The ~~contingency~~ **emergency response** plan may ~~contain an~~ **include 1 or more of the following:**
(i) Roles and responsibilities for waterworks personnel in an emergency.
(ii) An inventory of ~~necessary standby personnel,~~ **emergency response equipment, first aid supplies, replacement** equipment, chemicals, and other materials readily available for correction of problems**.**
(iii) Operational procedures to be implemented in an emergency, including emergency treatment measures in the event of contamination, **mutual aid agreements with other public water supplies, personnel safety measures such as evacuation plans and lock down procedures, and water sampling and monitoring plans to identify potential public health threats.**
(iv) Identification of alternate water sources available in a short-term situation as well as for a long-term duration, such as a a plan for interconnection with adjacent public water supplies or agreements with water haulers in the event of waterworks system failures or loss of pressure**.**
(v) Both internal and external communication procedures in an emergency, including ~~, and~~ appropriate means for notification of customers or users of a public water supply affected by an emergency. Public notification shall include a description of precautions or measures to be taken to protect the health of those customers or users.
(2) ~~A contingency~~ **An emergency response** plan prepared ~~by a supplier of water pursuant to~~ **under** this part shall include the general plan of the public water supply ~~owned or operated by the supplier of water~~ as required ~~pursuant to~~ **under** subsection (1) of section 4 of the act.
(3) A ~~supplier of water~~ **public water supply** shall identify in ~~a contingency~~ **an emergency response** plan the type, number, and capacity of standby power sources to operate a waterworks system in ~~the event of~~ a power outage or other situation requiring the use of other power sources.
(4) The ~~contingency~~ **emergency response** plan ~~shall outline duty assignments for waterworks personnel and~~ shall contain a schedule for updating the plan.
(5) The ~~contingency~~ **emergency response** plan shall include a listing of critical customers or users for whom the provision of a continuous supply of safe drinking water is most urgent.
(6) ~~Contingency plans~~ **An emergency response plan** ~~prepared pursuant to this part~~ shall be located and distributed as necessary to assure effective use ~~thereof~~ **of the emergency response plan** by all necessary waterworks system personnel.
(7) For purposes of consistency in developing ~~contingency~~ **emergency response** plans, ~~suppliers of water~~ **public water supplies** may use the American waterworks association manual M 19, emergency planning for water ~~utility management, 1973~~ **utilities, in R 325.10113**, as guidance ~~material~~.

R 325.12304 Emergency procedure.
Rule 2304. (1) When an emergency affecting a public water supply is discovered, the ~~supplier of water~~ **public water supply** shall immediately notify the ~~division~~ **department** by telephone of that emergency.

The ~~supplier of water~~ **public water supply** shall indicate in that notification the type of emergency, its discovery, the cause, the corrective actions planned to meet the emergency, and plans for notification to customers or users of the public water supply affected.
(2) A ~~supplier of water~~ **public water supply** shall, within 90 days after an emergency, file a written report with the department outlining in detail its discovery, the cause, the corrective actions taken by the ~~supplier of water~~ **public water supply** to meet the emergency, and the procedures by which its customers or users were notified. The report shall outline in detail the area of the waterworks system affected by the emergency, its duration, and the ability of the ~~supplier of water~~ **public water supply** to cope with the emergency by providing an adequate supply of safe drinking water.

PART 25. LICENSING OF WATER HAULERS

R 325.12503 Application for license.
Rule 2503. ~~Within 2 years after the effective date of these rules, a~~ **A** person engaged in the business of hauling water for drinking or household purposes shall apply for a license using a license application form provided by the department.

R 325.12505 Source and quality of water; chlorine; storage tanks.
Rule 2505. (1) All water hauled by a water hauler shall meet state drinking water standards and shall be from a public water supply or other source approved by the department.
(2) A water hauler shall add chlorine, in an amount specified by the department, when receiving water from a source and upon delivery of the water after hauling. The amount of chlorine to be added in each instance shall be specified on the license issued by the department for the water transportation tank. The department may require chlorine residual tests of the water hauled upon receipt of the water from the source, after addition of chlorine, and at delivery of the water. At the point of delivery of the water, a free chlorine residual of 1.0 mg/l is required. The department may approve an alternate means of disinfection upon written request by a water hauler **or may not require disinfection while hauling if the water is delivered to a water bottling facility and disinfected prior to use by the public**.
(3) When transporting water to a public water supply, a water hauler shall deliver water only to tanks or facilities approved by the department.

PART 27. LABORATORY CERTIFICATION

R 325.12701 Purpose.
Rule 2701. An analytical result that is used to determine compliance with ~~an MCL~~ **a state drinking water standard** established in part 6 shall be the result of an analysis performed by a department- or EPA-certified laboratory**, except that measurements for alkalinity, bromide, calcium, daily chlorite samples at the entrance to the distribution system, conductivity, magnesium, orthophosphate, pH, residual disinfectant concentration, silica, specific ultraviolet absorbance, temperature, and turbidity may be performed by personnel acceptable to the department**. This part sets forth requirements established by the federal act for laboratory certification.

R 325.12707 Certification for disinfection byproducts analyses.
Rule 2707. To receive certification to conduct analyses for the disinfection byproduct contaminants in R 325.10610, R 325.10610c to R 325.10610d, and R 325.10719g to R 325.10719n, the laboratory shall comply with all of the following:

(a) Analyze Performance Evaluation (PE) samples that are acceptable to United States environmental protection agency or the department not less than once during each consecutive 12-month period by each method for which the laboratory desires certification.
(b) The laboratory shall achieve quantitative results on the PE sample analyses that are within the acceptance limits in table 1 of this rule:

Table 1 Acceptance limits

DBP	**Acceptance limits(percent of true value)**
TTHM	
Chloroform	**+/-20 Laboratory shall meet all 4 individual THM acceptance limits to successfully pass a PE sample for TTHM**
Bromodichloromethane	**+/-20**
Dibromochloromethane	**+/-20**
Bromoform	**+/-20**
HAA5	
Monochloroacetic Acid	**+/-40 Laboratory shall meet the acceptance limits for 4 out of 5 of the HAA5 compounds in order to successfully pass a PE sample for HAA5**
Dichloroacetic Acid	**+/-40**
Trichloroacetic Acid	**+/-40**
Monobromoacetic Acid	**+/-40**
Dibromoacetic Acid	**+/-40**
Chlorite	**+/-30**
Bromate	**+/-30**

PART 28. ~~WELLHEAD~~ **SOURCE WATER** PROTECTION GRANT ASSISTANCE

R 325.12801 Definitions.
Rule 2801. As used in ~~these rules~~ **this part**:
(a) "Abandoned well" means any of the following which presents a threat to the groundwater resource and which no longer serves the purpose for which it was intended or has been taken out of service:
(i) A water well.
(ii) A monitoring well.
(iii) An oil well.
(iv) A gas well.
(v) A mineral well.
(vi) A drainage well.
(vii) A recharge well.
(viii) A test well.
(ix) An injection well.
(x) Other unplugged borings.
(b) "Aquifer test" means a groundwater resource assessment completed under ~~Act No. 399 of the Public Acts of 1976, as amended, being '325.1001 et seq. of the Michigan Compiled Laws~~ **the act**, R 325.10813 governing the study of hydrogeological conditions by suppliers of water of type I and type

IIa public water supplies, and R 325.10814 governing the studies of suppliers of water of type IIb and type III public water supplies.
(c) "Contaminant source inventory" means the identification of sources of contamination or land uses within a ~~wellhead~~ **source water** protection area that have a potential to adversely impact the ~~groundwater~~ **drinking water** resource.
(d) "Delineation" means **the area identified by** a hydrogeologic investigation conducted for the purpose of determining a wellhead protection area that meets the requirements of the state of Michigan wellhead protection program.
(e) **"Designation" means the area identified by a hydrologic investigation conducted for the purpose of determining a surface water intake protection area that meets the requirements of the state of Michigan surface water intake protection program.**
(f) "Elements" means the 7 areas that shall be addressed to obtain approval of a ~~wellhead~~ **source water** protection program and includes all of the following:
(i) Roles and duties.
(ii) Delineation of the wellhead protection area.
(iii) Identification of potential and known contaminant sources.
(iv) Management strategies.
(v) Contingency plans for the ~~wellhead~~ **source water** protection area.
(vi) New wells **or surface water intakes**.
(vii) Public participation.
(~~f~~**g**) "Grant applicant" means a community public water supply, or a not-for-profit, nontransient, noncommunity public water supply that applies for grant assistance under the ~~wellhead~~ **source water** protection grant program on behalf of the persons or municipality served by the public water supply.
(~~g~~**h**) "Grant assistance" means the dedication of grant funds to a public water supply to support the development and implementation of a ~~wellhead~~ **source water** protection program.
(i) "Grant cycle" means a 1-year period beginning the date the grant assistance is awarded.
(~~h~~**j**) "Grant-eligible activity" means a task undertaken by a community or nontransient, noncommunity public water supply for the purpose of determining a ~~wellhead~~ **source water** protection area or developing and implementing a ~~wellhead~~ **source water** protection program that is eligible for grant assistance in accordance with these rules.
(~~i~~**k**) "Grant program priority list" means an annual list of grant applicants developed by the department that ranks the applicants for prioritization of grant assistance.
(l) "Intake" means the point where water is withdrawn from a surface water source.
(~~j~~**m**) "Local team" means a group of not less than 3 persons that includes the public water supply superintendent, a representative of the municipality, and a representative from at least 1 of the following entities whose purpose is to facilitate the development, implementation and long-term maintenance of a wellhead protection program:
(i) Local health department.
(ii) Local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.
(vi) Planning.
(vii) Environmental **or watershed** groups.
(viii) The general public. A local team for a nontransient, noncommunity public water supply shall include representation from not less than 3 of the groups listed in this subdivision.

(~~k~~**n**) "Low tritium public water supply" means a community supply or nontransient, noncommunity water supply that has had its well water sampled for tritium and had sample results of not more than 1.0 tritium unit (TU).

(o) "Outfall" means the point of discharge of a drain or sewer.

(p) "Provisional wellhead protection area" means the area which has been approved by the department in accordance with the state of Michigan wellhead protection program as the wellhead protection area based on computer manipulation of existing state of Michigan databases.

(q) "Sensitivity" means a measure of the physical attributes of the source water protection area and how readily those attributes protect the intake from contaminants.

(r) "Source water assessment" means an evaluation of a public water supply system under the federal act that identifies the areas that supply public drinking water, inventories contaminants, determines sensitivity, and assesses water susceptibility to contamination, or as updated with current information.

(s) "Source water protection area" means either a wellhead protection area or provisional wellhead protection area for groundwater sources of drinking water or a surface water intake protection area for surface water sources of drinking water.

(t) "Source water protection program" means a program that has been approved by the department upon meeting the criteria for approval under the state of Michigan source water protection program, including programs protecting groundwater and surface water sources.

(u) "Surface water intake protection area" means the area most likely to contribute contaminants to the drinking water source as approved by the department in accordance with the state of Michigan surface water intake protection program.

(v) "Surface water intake protection program" means a program protecting surface water sources that has been approved by the department upon meeting the criteria for approval under the state of Michigan source water protection program.

(w) "Susceptibility" means the ranking from very high to very low of the likelihood a source of drinking water could become contaminated.

(~~l~~**x**) "Total grant assistance" means the maximum amount of grant assistance each ~~fiscal year~~ **grant cycle** that a public water supply may receive~~ based upon the population served by the public water supply and the number of wells owned and operated by the public water supply~~.

(y) "Well" means the point where water is withdrawn from a groundwater source.

(~~m~~**z**) "Wellhead protection area" means the area which has been approved by the department in accordance with the state of Michigan wellhead protection program, which represents the surface and subsurface area surrounding a water well or well field, which supplies a public water supply, and through which contaminants are reasonably likely to move toward and reach the water well or well field within a 10-year time of travel.

(~~n~~**aa**) "Wellhead protection program" means a program **protecting groundwater sources** that has been approved by the department upon meeting the criteria for approval under the state of Michigan ~~wellhead~~ **source water** protection program.

R 325.12802 Applicant qualifications.

Rule 2802. (1) Community and not-for-profit, nontransient, noncommunity public water supplies that utilize groundwater **or surface water** as a source of water, exclusive of federally owned public water supplies, may qualify for grant assistance.

(2) A public water supply that applies for grant assistance shall provide a local match equal to the grant assistance requested in the grant application.

(3) A public water supply that receives grant assistance shall be able to complete the grant-eligible activities specified in the grant application within ~~2 years~~ **1 year** from the time the grant assistance is awarded to the public water supply.
(4) Public water supplies that have outstanding prior year fees as prescribed in the ~~Act~~ **act** are not eligible for grant assistance.

R 325.12803 Submission of applications.
Rule 2803. (1) An applicant for grant assistance shall apply to the department on a form prescribed and provided by the department.
(2) The department shall establish a deadline for submission of applications in the grant application process and shall notify applicants of the application deadline on the form prescribed and provided by the department.
(3) An applicant shall provide a description of the grant-eligible activities for which the grant assistance is to be applied.
(4) An application shall include proof, through 1 of the following, of a local match to the grant assistance and proof that the grant assistance and local match will be expended on grant-eligible activities, as applicable:
(a) Providing documentation of a line item budget dedicated to the grant-eligible activities identified in the grant application. The line item budget shall include the dedication of funds to grant-eligible activities in an amount equal to the grant assistance plus the local match.
(b) Providing documentation of a contractually binding agreement committing the applicant to an expenditure of funds in an amount equal to the grant assistance plus the local match for the grant-eligible activities identified in the grant application.
(c) Providing documentation of previous expenditures on grant-eligible activities equivalent to or greater than the grant assistance requested in the grant application.
(d) Providing documentation of the match through a combination of any of the items specified in this subrule.
(5) Previous expenditures by the applicant to seal abandoned wells as defined in ~~Part 127 of Act No. 368 of the Public Acts of 1978, as amended, being '333.12701 et seq. of the Michigan Compiled Laws~~ **part 127 of 1978 PA 368, MCL 333.12701 to 333.12771**, within a ~~wellhead~~ **source water** protection area or within a 1-mile radius of a low tritium public water supply **well** may be utilized as the local match.

R 325.12804 Long-term commitment to ~~wellhead~~ **source water** protection.
Rule 2804. (1) A grant applicant shall demonstrate a long-term commitment to the development, implementation, and maintenance of a ~~wellhead~~ **source water** protection program by providing both of the following:
(a) A time line for completion of the grant-eligible activities.
(b) A time line for the completion of each of the elements required of a state-approved ~~wellhead~~ **source water** protection program.
(2) The applicant shall demonstrate the establishment of a local team whose goal is to facilitate the development, implementation, and maintenance of a ~~wellhead~~ **source water** protection program.

R 325.12805 Priority ~~list~~ **lists**.
Rule 2805. (1) ~~Annually~~ **Before awarding grants**, the department shall develop ~~a~~ **1 or both of the following:**
(a) A wellhead protection grant program priority list of applicants ~~deemed~~ **considered** eligible for grant assistance.

(b) A surface water intake protection grant program priority list of applicants considered eligible for grant assistance.
(2) For the purpose of providing grant assistance, the grant program priority ~~list~~ **lists** shall take effect on the first day of each ~~fiscal year, except for fiscal year 1998~~ **grant cycle established by the department**.
(3) The grant program priority ~~list~~ **lists** shall be based upon all of the following criteria:
(a) The establishment of a local team.
(b) Coordination of the local team with an adjacent municipality.
(c) The adoption of a local ordinance or resolution related to ~~wellhead~~ **source water** protection.
(d) The manner in which the local match is provided.
(e) The proposed time line for completion of a ~~wellhead~~ **source water** protection program.
(f) Incorporation of the ~~wellhead~~ **source water** protection program into other land use planning strategies.
(g) For surface water source applicants, the intake susceptibility rating as determined by an existing or updated public water supply source water assessment.

R 325.12806 Availability of grant funds.
Rule 2806. (1) Grant assistance shall be provided to an eligible grant applicant to the extent that grant funds are available as determined by the department.
(2) An eligible applicant denied grant assistance during the year a grant program priority list is developed shall be prioritized on the next annual grant program priority list using the same criteria, unless the applicant submits an amendment to the grant application that alters the applicant's status on the grant program priority list or unless conditions change for the original grant submittal.
(3) An applicant that has not received grant assistance upon application in any previous ~~fiscal year~~ **grant cycle** shall be placed on the grant program priority list ahead of an applicant who was funded in a previous year and funded in the current ~~fiscal year~~ **grant cycle** of application if all of the following provisions apply:
(a) The applicant meets the minimum points requirement for funding in the priority list score as specified in R 325.12807(2).
(b) The awarding of grant assistance to the applicant is in compliance with R 325.12810.
(c) Grant funds are available.

R 325.12807 Priority list score.
Rule 2807. (1) A maximum **number** of ~~25~~ points may be awarded a grant applicant for prioritization on the annual grant program priority list~~.~~ **as listed below:**
(a) A wellhead protection grant program applicant may be awarded a maximum of 25 points.
(b) A surface water intake protection grant program applicant may be awarded a maximum of 30 points.
(2) A minimum of 10 points is required in the priority list score to be eligible for grant assistance.
(3) A maximum of 5 points shall be assigned a grant applicant for the development of a local team. The points shall be assigned in accordance with the following schedule:
(a) Five points for a team that includes representation by the public water supply superintendent, the municipality, and any 6 of the following entities:
(i) The local health department.
(ii) The local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.

(vi) Planning.
(vii) An environmental **or watershed** group.
(viii) The general public.
(b) Four points for a team that includes representation by the public water supply superintendent, the municipality, and any 5 of the following entities:
(i) The local health department.
(ii) The local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.
(vi) Planning.
(vii) An environmental **or watershed** group.
(viii) The general public.
(c) Three points for a team that includes representation by the public water supply superintendent, the municipality, and any 4 of the following entities:
(i) The local health department.
(ii) The local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.
(vi) Planning.
(vii) An environmental **or watershed** group.
(viii) The general public.
(d) Two points for a team that includes representation by the public water supply superintendent, the municipality, and any 3 of the following entities:
(i) The local health department.
(ii) The local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.
(vi) Planning.
(vii) An environmental **or watershed** group.
(viii) The general public.
(e) One point for a team that includes representation by the public water supply superintendent, the municipality, and any 2 of the following entities:
(i) The local health department.
(ii) The local fire department.
(iii) Business and industry.
(iv) Agriculture.
(v) Education.
(vi) Planning.
(vii) An environmental **or watershed** group.
(viii) The general public.
(4) Two points shall be assigned for a local team that includes representation from an adjacent municipality which has land in the projected or approved ~~wellhead~~ **source water** protection area or which receives service from the applicant or if the approved ~~wellhead~~ **source water** protection area lies

entirely within the jurisdiction of a municipality and the public water supply does not provide service to an area outside of the jurisdiction of the municipality.
(5) A maximum of 3 points shall be assigned a grant applicant for the adoption of an ordinance or resolution as follows:
(a) Three points for the passage of a local ordinance related to the development and implementation of a local ~~wellhead~~ **source water** protection program.
(b) One point for the adoption of a local resolution that demonstrates a commitment to the development and implementation of a local ~~wellhead~~ **source water** protection program.
(6) A maximum of 6 points shall be assigned a grant applicant based upon the manner in which the local match is demonstrated as follows:
(a) Six points for demonstrating that the local match has been provided through the previous expenditure of funds on grant-eligible activities.
(b) Three points for demonstrating that the local match and the grant assistance have been committed through a contractually binding agreement with a consultant.
(c) One point for demonstrating that the local match has been provided as an identifiable item within a local budget dedicating the local match and the grant assistance to grant-eligible activities.
(7) A maximum of 3 points shall be assigned a grant applicant based upon the time line for completion of a ~~wellhead~~ **source water** protection program as follows:
(a) Three points for a program completed before the date of the grant application.
(b) Two points for a time line for program completion within 1 year of the date of application.
(c) One point for a time line for program completion within 3 years of the date of application.
(8) A maximum of 6 points shall be assigned the grant applicant as follows:
(a) Three points for a plan to incorporate the ~~wellhead~~ **source water** protection program into a municipality's master plan or other regional land use planning program.
(b) Three points for a plan to implement a public outreach, education, or planning program of not less than 3 years duration.
(9) **A maximum of 5 points shall be assigned the surface water intake protection program grant applicant based on the intake susceptibility rating as determined by a public water supply source water assessment as follows:**
(a) Five points for a very high susceptibility rating.
(b) Three points for a high susceptibility rating
(c) One point for a moderately high susceptibility rating.
(10) If the priority list score results in a tie between 2 applicants **on that priority list**, then the award of grant funds shall be provided to the applicants as follows:
(a) The applicant that has received the lesser amount in total grant funds through application in previous ~~fiscal years~~ **grant cycles** shall be awarded the grant funds in the current ~~year~~ **grant cycle** of application.
(b) If the applicants have received the same amount in total grant funds through application in previous ~~fiscal years~~ **grant cycles**, then the applicant whose public water supply exhibits the greatest population-to-grant dollars ratio shall be awarded the grant assistance.

R 325.12808 Total **wellhead protection** grant assistance ~~based upon population served~~**; supplemental grant assistance**.
Rule 2808. (1) The total grant assistance received by a public water supply in the wellhead protection grant program shall be based upon the total population served by the public water supply.
(2) The total grant assistance available to a public water supply shall be as follows:
(a) A public water supply that serves a population of 500 persons or less shall be eligible for ~~a~~ total grant assistance of not more than $7,500.00.

(b) A public water supply that serves a population of 501 to 3,300 persons shall be eligible for ~~a~~ total grant assistance of not more than $15,000.00.
(c) A public water supply that serves a population of 3,301 to 10,000 persons shall be eligible for ~~a~~ total grant assistance of not more than $30,000.00.
(d) A public water supply that serves a population of more than 10,000 persons shall be eligible for total grant assistance of not more than $50,000.00
(3) A grant applicant that requests grant assistance in excess of the population-based limit for the total grant assistance shall be granted the maximum allowable grant assistance in accordance with subrule (2) of this rule if other requirements for grant assistance are fulfilled.
(4) The total grant assistance available to a public water supply based upon the population served shall be increased based upon supplemental grant assistance that reflects the number of wells which the public water supply owns and operates as follows:
(a) A public water supply that owns and operates 3 to 5 wells shall be eligible for supplemental grant assistance of not more than $5,000.00.
(b) A public water supply that owns and operates 6 to 10 wells shall be eligible for supplemental grant assistance of not more than $10,000.00.
(c) A public water supply that owns and operates 11 to 15 wells shall be eligible for supplemental grant assistance of not more than $15,000.00
(d) A public water supply that owns and operates more than 15 wells shall be eligible for supplemental grant assistance of not more than $20,000.00.
(5) A grant applicant that requests supplemental grant assistance in excess of the maximum based upon the number of wells owned and operated by the public water supply shall be provided the maximum grant assistance in accordance with subrule (4) of this rule.

R 325.12809 Total **surface water intake protection** grant assistance ~~based upon number of wells~~.
Rule 2809. ~~(1) The total grant assistance available to a public water supply based upon the population served shall be increased based upon supplemental grant assistance that reflects the number of wells which the public water supply owns and operates as follows:~~
~~(a) A public water supply that owns and operates 3 to 5 wells shall be eligible for supplemental grant assistance of not more than $5,000.00.~~
~~(b) A public water supply that owns and operates 6 to 10 wells shall be eligible for supplemental grant assistance of not more than $10,000.00.~~
~~(c) A public water supply that owns and operates 11 to 15 wells shall be eligible for supplemental grant assistance of not more than $15,000.00~~
~~(d) A public water supply that owns and operates more than 15 wells shall be eligible for supplemental grant assistance of not more than $20,000.00.~~
~~(2) A grant applicant that requests supplemental grant assistance in excess of the maximum based upon the number of wells owned and operated by the public water supply shall be provided the maximum grant assistance in accordance with subrule (1) of this rule.~~ **The total surface water intake protection grant assistance available to a public water supply shall be based on the susceptibility rating as follows:**
(a) A public water supply with a susceptibility rating of very high or high shall be eligible for total grant assistance of not more than $20,000.00.
(b) A public water supply with a susceptibility rating of moderately high or moderate shall be eligible for total grant assistance of not more than $15,000.00.
(c) A public water supply with a susceptibility rating of moderately low, low or very low shall be eligible for total grant assistance of not more than $10,000.00.

R 325.12810 Distribution of available grant funds **for groundwater public water supplies** based upon population served ~~by~~ **and surface water** public water supplies **based on susceptibility**.
Rule 2810. (1) If the requests for grant assistance **for groundwater public water supplies** exceeds the grant funds available in a ~~fiscal year~~ **grant cycle**, then the maximum and minimum grant assistance provided to **groundwater** public water supplies according to the population served shall be based upon a percentage of the total grant funds available for the ~~fiscal year~~ **grant cycle** as follows:
(a) ~~Public~~ **Groundwater public** water supplies serving a population of 500 persons or less shall receive not more than 30%, and not less than 15%, of the total grant funds available in any given ~~fiscal year~~ **grant cycle**.
(b) ~~Public~~ **Groundwater public** water supplies serving a population of 501 to 3,300 persons shall receive not more than 50%, and not less than 25%, of the total grant funds available in any given ~~fiscal year~~ **grant cycle**.
(c) ~~Public~~ **Groundwater public** water supplies serving a population of 3,301 to 10,000 persons shall receive not more than 30%, and not less than 15%, of the total grant funds available in any given ~~fiscal year~~ **grant cycle**.
(d) ~~Public~~ **Groundwater public** water supplies serving a population of more than 10,000 persons shall receive not more than 30%, and not less than 15% of the total grant funds available in any given ~~fiscal year~~ **grant cycle**.
(2) The department may provide a greater percentage of the available grant funds to **groundwater** public water supplies of a given population served if requests for grant assistance do not exceed the established minimum percentage of total grant funds available to **groundwater** public water supplies of other population-served categories.
(3) If requests for grant assistance for surface water public water supplies exceeds the grant funds available in a grant cycle, then the maximum and minimum grant assistance provided to surface water public water supplies according to the susceptibility rating shall be based upon a percentage of the total grant funds available for the grant cycle as follows:
(a) Surface water public water supplies with a susceptibility rating of very high shall receive 50% of the total grant funds available in any given grant cycle.
(b) Surface water public water supplies with a susceptibility rating of high shall receive 25% of the total grant funds available in any given grant cycle.
(c) Surface water public water supplies with a susceptibility rating of moderately high shall receive 25% of the total grant funds available in any given grant cycle.
(4) The department may provide a greater percentage of the available grant funds to surface water public water supplies of a given susceptibility rating if requests for grant assistance do not exceed the established percentage of total grant funds available to surface water public water supplies of other susceptibility ratings.

R 325.12812 Grant-eligible activities to support local ~~wellhead~~ **source water** protection programs; contact person; formation of local team; team responsibilities**.**
Rule 2812. (1) Grant-eligible activities shall support the development or implementation of a local ~~wellhead~~ **source water** protection program and be consistent with the state of Michigan ~~wellhead~~ **source water** protection program.
(2) A public water supply shall provide the department with the name, title, and address of a contact person who shall take the lead in the development and implementation of the local ~~wellhead~~ **source water** protection program, including local administration of the ~~wellhead~~ **source water** protection grant.

The contact person shall submit quarterly progress reports on a form provided by the department.
(3) A public water supply shall provide the department with evidence of the formation of a local team. The team shall consist of the public water supply superintendent, the municipality, and at least 1 of the following entities:
(a) The local health department.
(b) The local fire department.
(c) Business and industry.
(d) Agriculture.
(e) Education.
(f) Planning.
(g) An environmental **or watershed** group.
(h) The general public.
(4) The local team shall be responsible for providing a time line for the completion of grant-eligible activities identified in the grant application.
(5) The local team shall be responsible for providing a time line for the completion of a ~~wellhead~~ **source water** protection program.

R 325.12813 ~~Wellhead~~ **Source water** protection program elements.
Rule 2813. (1) The following ~~wellhead~~ **source water** protection program elements include grant-eligible activities for which grant funds may be applied:
(a) The establishment of roles and duties.
(b) **Either of the following program elements:**
(i) ~~The~~ **For a wellhead protection program,** delineation of a wellhead protection area **as approved by the department**.
(ii) For a surface water intake protection program, the designation of a surface water intake protection area as approved by the department.
(c) The completion of a contaminant source and land use inventory.
(d) The development or implementation of management strategies and programs to control contaminant sources or land use.
(e) The development and implementation of a contingency plan.
(f) The phasing of new wells **or intakes** into a ~~wellhead~~ **source water** protection program.
(g) The development or implementation of public participation strategies in a ~~wellhead~~ **source water** protection program.
(2) Program development and implementation activities, such as a contaminant source and land use inventory, development and implementation of management strategies, contingency planning and public participation, are eligible for grant assistance in more than 1 ~~fiscal year~~ **grant cycle**.

R 325.12814 Grant-eligible activities; development and implementation of certain partnership agreements.
Rule 2814. The development and implementation of partnership agreements between municipalities for the purpose of ~~wellhead~~ **source water** protection is grant-eligible.

R 325.12815 Grant-eligible delineation **and designation** activities.
Rule 2815. (1) **All of the following apply to grant-eligible wellhead protection area delineation activities:**

(a) Grant-eligible delineation activities shall be proposed, described, and completed ~~in accordance with~~ **under** the wellhead protection area delineation guidance established by the department in the state of Michigan wellhead protection program.
(~~2~~**b**) Grant-eligible activities include the following:
(~~a~~**i**) The compilation of existing hydrogeologic information.
(~~b~~**ii**) The ~~Installation~~ **installation** of observation wells for an aquifer test on an existing public water supply well.
(~~c~~**iii**) Aquifer tests and aquifer test analysis on an existing public water supply well.
(~~d~~**iv**) Surveying.
(~~e~~**v**) Collection of static water levels.
(~~f~~**vi**) Groundwater modeling, including particle tracking.
(~~3~~**c**) If ~~deemed~~ **considered** necessary by the department due to the lack of accessibility to existing wells, the area geology indicates a public water supply may be a low tritium public water supply, or a known groundwater contamination is present within the wellhead protection area, the following activities may be deemed grant-eligible:
(~~a~~**i**) The installation of monitoring wells for the collection of static water level information.
(~~b~~**ii**) The collection and analysis of tritium samples.
(~~c~~**iii**) The installation of sentinel wells to monitor water quality within the wellhead protection area.
(2) Both of the following apply to surface water intake protection area designation activities:
(a) Grant-eligible designation activities shall be proposed, described, and completed pursuant to the surface water intake protection area designation guidance established by the department in the state of Michigan surface water intake protection program.
(b) Grant-eligible activities include the following:
(i) The compilation of existing hydrologic information.
(ii) Stream flow monitoring or hydrodynamic modeling to determine seasonal fluctuations, time of travel, and other impacts upon source water.

R 325.12816 Grant-eligible contaminant source and land use inventory activities.
Rule 2816. (1) Contaminant source and land use inventories to identify existing and potential threats to a public water supply are grant-eligible within the ~~wellhead~~ **source water** protection area or within a 1-mile radius of the well field for a low tritium public water supply **well**.
(2) ~~The following~~ **Grant-eligible** contaminant source and land use inventory activities ~~are grant-eligible activities~~ **include the following**:
(a) Record searches to identify potential sources of contamination and land uses that have a potential to impact the ~~groundwater~~ **source water**.
(b) General surveys to identify potential sources of contamination and land uses that have a potential to impact the ~~groundwater~~ **source water**.
(c) On-site inspection of facilities that have a potential to impact the ~~groundwater~~ **source water**.
(d) Record searches to identify historical land uses that have a potential to impact the ~~groundwater~~ **source water**.
(e) The mapping of existing and potential sources of contamination within the ~~wellhead~~ **source water** protection area.
(f) Updating a contaminant source inventory.
(g) The development and implementation of a program to locate and identify abandoned wells **in the source water protection area**.
(h) The development and implementation of a program to identify nonpoint sources and to locate and identify outfalls with the potential to impact the surface water intake protection area.

R 325.12817 Grant-eligible management activities.
Rule 2817. (1) Grant-eligible management activities shall provide an elevated level of protection to the ~~wellhead~~ **source water** protection area or within a 1-mile radius of the well field for a low tritium public water supply **well**.
(2) Grant-eligible management activities include the following:
(a) The development and implementation of best management practices that reduce the risk of ~~groundwater~~ **source water** contamination.
(b) The development and implementation of ~~wellhead~~ **source water** protection resolutions or ordinances.
(c) On-site inspections for the purpose of improving facility management of potential sources of contamination.
(d) The development and implementation of a program to control abandoned wells, excluding the actual sealing of abandoned wells **in a source water protection area**.
(e) Incorporation of a ~~wellhead~~ **source water** protection program into a municipality's master plan or other regional land use planning program.

R 325.12818 Grant-eligible contingency plan and emergency response protocol activities.
Rule 2818. The development and implementation of a contingency plan and emergency response protocol for a ~~wellhead~~ **source water** protection area or within a 1-mile radius of the well field for a low tritium public water supply **well** are grant-eligible activities.

R 325.12819 Grant-eligible new well **and new surface water intake** activities.
Rule 2819. **(1)** Grant-eligible activities for new wells include **all of** the following:
(a) Completion of a delineation for a new well or well field, exclusive of the cost incurred to conduct an aquifer test that is a requirement of the public water supply program for the construction of new wells.
(b) The development and implementation of a wellhead protection program for a new well or well field.
(c) Incorporation of a new well or well field into an existing wellhead protection program.
(2) Grant-eligible activities for new surface water intakes include both of the following:
(a) The development and implementation of a surface water intake protection program for a new intake.
(b) Incorporation of a new intake into an existing surface water intake protection program.

R 325.12820 Grant-eligible public participation activities.
Rule 2820. (1) Grant-eligible activities for public participation shall provide a positive benefit to the ~~wellhead~~ **source water** protection program by raising public awareness in matters pertaining to ~~wellhead~~ **source water** protection and utilization of the ~~groundwater~~ **source water** resource by a public water supply.
(2) Grant-eligible activities for public participation include~~, but may not be limited to,~~ the following:
(a) The development and implementation of a school curriculum related to ~~wellhead~~ **source water** protection.
(b) The development and implementation of a strategy to educate the general public on issues related to ~~wellhead~~ **source water** protection.
(c) The development, production, and circulation of educational materials.
(d) The development, preparation, and production of media announcements, such as news releases, newspaper articles, and radio announcements.

(e) Signing activities which identify an approved ~~wellhead~~ **source water** protection area or which promote the concept of ~~wellhead~~ **source water** protection, such as storm drain stenciling and the construction and placement of road signs.

NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

The Michigan Department of Environmental Quality (DEQ), Water Bureau, will conduct a public hearing on proposed administrative rules promulgated pursuant to Section 5 of the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399); selected rules from R 325.10101 to R 325.12820. These rules adopt recently promulgated amendments to the national primary drinking water regulations, as required in order to maintain primary enforcement authority for the Public Water System Supervision Program. These rules also update and expand long-standing public water supply requirements to address waterworks system construction, planning, and operation; required training for water system operators; and rules to disburse grants for source water protection.

The public hearing will be held on Friday, June 12, 2009, at 9:00 a.m., in the ConCon Conference Room, Constitution Hall, 525 West Allegan Street, Lansing, Michigan 48933.

Copies of the proposed rules (SOAHR 2008-027EQ) can be downloaded from the Internet at: http://www.michigan.gov/deq. Click on Water, Drinking Water, and Community Water Supply. Scroll down to Laws and Rules. Click on Proposed Rules and then click on draft rules. These rules can also be downloaded from the Internet through the State Office of Administrative Hearings and Rules at http://www.michigan.gov/soahr. Copies of the rules may also be obtained by contacting the Lansing office at:

Water Bureau
Michigan Department of Environmental Quality
P.O. Box 30273
Lansing, Michigan 48909-7773
Phone: 517-241-1318
Fax: 517-241-1328
E-Mail: reckd@michigan.gov

All interested persons are invited to attend and present their views. It is requested that all statements be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the address above. Written comments must be received by 4:00 p.m., June 16, 2009.
Persons needing accommodations for effective participation in the meeting should contact the Water Bureau at 517-241-1318 one week in advance to request mobility, visual, hearing, or other assistance.
This notice of public hearing is given in accordance with Sections 41 and 42 of Michigan's Administrative Procedures Act, 1969 PA 306, as amended, being Sections 24.241 and 24.242 of the Michigan Compiled Laws. Administration of the rules is by authority conferred on the Director of the DEQ by Sections 5 and 16 and Executive Order 1996-1.

William Creal

William Creal, Chief
Water Bureau

ENROLLED SENATE AND HOUSE BILLS SIGNED INTO LAW OR VETOED (2009 SESSION)

Mich. Const. Art. IV, §33 provides: "Every bill passed by the legislature shall be presented to the governor before it becomes law, and the governor shall have 14 days measured in hours and minutes from the time of presentation in which to consider it. If he approves, he shall within that time sign and file it with the secretary of state and it shall become law . . . If he does not approve, and the legislature has within that time finally adjourned the session at which the bill was passed, it shall not become law. If he disapproves . . . he shall return it within such 14-day period with his objections, to the house in which it originated."

Mich. Const. Art. IV, §27, further provides: "No act shall take effect until the expiration of 90 days from the end of the session at which it was passed, but the legislature may give immediate effect to acts by a two-thirds vote of the members elected to and serving in each house."

MCL 24.208 states in part:

"Sec. 8. (1) The State Office of Administrative Hearings and Rules shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(b) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills signed into law by the governor during the calendar year and the corresponding public act numbers.

(c) On a cumulative basis, the numbers and subject matter of the enrolled senate and house bills vetoed by the governor during the calendar year."

ENROLLED SENATE AND HOUSE BILLS SIGNED INTO LAW OR VETOED (2009 SESSION)

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E. * Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
1	4239		Yes	3/11	3/11	3/11/09	Employment security; administration; persons to whom agency information may be disclosed and assessment of solvency tax; revise. **(Rep. B. Constan)**
2		202	Yes	3/26	3/27	3/27/09	Liquor; retail sales; prohibition of ownership or marketing for certain entities; revise and clarify. **(Sen. A. Sanborn)**
3	4582		Yes	3/31	3/31	3/31/09	Appropriations; supplemental; multidepartment supplemental for 2008-2009 fiscal year; provide for. **(Rep. L. Gonzales)**
4		190	Yes	4/2	4/2	4/2/09	Communications; video services; dispute resolution process; provide for. **(Sen. S. Thomas)**
5	4515		Yes	4/6	4/6	4/6/09 #	Michigan business tax; credit; number of credits for certain cell manufacturing facilities; increase. **(Rep. D. Slavens)**
6		319	Yes	4/6	4/6	4/6/09 #	Michigan business tax; credit; credit available for certain cell manufacturing facilities; increase, and revise composition of review board. **(Sen. J. Pappageorge)**
7	4258		Yes	4/6	4/7	4/7/09	Appropriations; supplemental; multidepartment supplemental for fiscal year ending September 30, 2009; provide for. **(Rep. G. Cushingberry)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E. * Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
8		098	Yes	4/9	4/9	1/1/08 #	Michigan business tax; estimated payments; clarification during transition period for penalties associated with the payment of estimated taxes for the 2008 tax year; provide for. **(Sen. J. Pappageorge)**
9	4496		Yes	4/9	4/9	1/1/08 #	Michigan business tax; estimated payments; clarification during transition period for penalties associated with the payment of estimated taxes for the 2008 tax year; provide for. **(Rep. S. Roberts)**
10	4096		Yes	4/9	4/9	4/9/09 #	Criminal procedure; warrants; issuance of certain search warrants; revise. **(Rep. R. LeBlanc)**
11		188	Yes	4/9	4/9	4/9/09 #	Criminal procedure; warrants; issuance of certain search warrants; revise. **(Sen. A. Cropsey)**
12		379	Yes	4/9	4/9	4/9/09 #	Financial institutions; loan officers; mortgage loan officer registration; require for consumer financial service companies. **(Sen. D. Olshove)**
13		380	Yes	4/9	4/9	4/9/09 #	Financial institutions; loan officers; registration of consumer financial services company mortgage loan officers; allow under mortgage brokers, lenders, and servicers licensing act. **(Sen. G. Van Woerkom)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E. * Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
14		381	Yes	4/9	4/9	4/9/09 #	Financial institutions; loan officers; registration of consumer financial services company mortgage loan officers; allow under secondary mortgage act. **(Sen. B. Hardiman)**
15		227	Yes	4/9	4/9	4/9/09	Children; guardians; guardianship assistance act; clarify. **(Sen. I. Clark-Coleman)**
16	4045		Yes	4/9	4/9	4/9/09	Economic development; neighborhood enterprise zones; requirements for filing certain applications for a neighborhood enterprise zone; revise. **(Rep. B. Scott)**
17	4159		Yes	4/9	4/9	4/9/09	Children; adoption; adoption support subsidy; modify to bring into compliance with federal IV-E standards. **(Rep. A. Smith)**
18	4668		Yes	4/13	4/13	4/13/09	Employment security; benefits; nonchargeable benefits; modify. **(Rep. S. Lindberg)**
19		399	Yes	4/13	4/13	4/13/09	Employment security; benefits; provision relating to extended benefits; modify. **(Sen. J. Allen)**
20	4669		Yes	4/13	4/13	4/13/09	Employment security; benefits; training benefits charged to nonchargeable account; clarify. **(Rep. L. Liss)**
21		195	Yes	5/5	5/5	5/5/09 #	Local government; financing; investment in certain certificates of deposit; include credit unions. **(Sen. T. Stamas)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E. * Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
22	4397		Yes	5/5	5/5	5/5/09 #	Education; financing; investment of certain deposit; include credit unions. **(Rep. J. Mayes)**
23		322	Yes	5/7	5/7	5/7/09	Appropriations; supplemental; projects administered by departments of natural resources and military affairs; provide funding. **(Sen. M. McManus)**
24	4309		Yes	5/12	5/12	5/12/09	Appropriations; zero budget; supplemental appropriations; provide for fiscal year 2008-2009. **(Rep. G. Cushingberry)**
25	4715		Yes	5/12	5/12	5/12/09	State financing and management; funds; investment of money in state lottery fund; modify. **(Rep. B. Johnson)**
26		466	Yes	5/12	5/12	5/12/09	Michigan business tax; credit; number of credits available for certain cell manufacturing facilities and cap on credit for certain research and development expenses; increase. **(Sen. W. Kuipers)**
27		145	Yes	5/20	5/21	7/1/09 #	Criminal procedure; sentencing; restitution to include recovery for replacement value if fair market value is impractical or impossible to ascertain; allow. **(Sen. J. Barcia)**
28		146	Yes	5/20	5/21	7/1/09 #	Crime victims; restitution; recovery for replacement value if fair market value is impossible or impractical to ascertain; allow. **(Sen. A. Cropsey)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E. * Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
29	4453		Yes	5/20	5/21	7/5/09 #	Civil procedure; foreclosure; foreclosure by advertisement; prohibit unless requirements of mortgage negotiation program have been completed. **(Rep. S. Jackson)**
30	4454		Yes	5/20	5/21	7/5/09 #	Civil procedure; foreclosure; negotiation program for mortgages of certain residential property that are in default; create. **(Rep. A. Coulouris)**
31	4455		Yes	5/20	5/21	7/5/09 #	Civil procedure; foreclosure; foreclosure by advertisement; prohibit if borrower qualifies for modification of mortgage loan. **(Rep. B. Johnson)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

MICHIGAN ADMINISTRATIVE CODE TABLE
(2009 SESSION)

MCL 24.208 states in part:

"Sec. 8. (1) The State Office of Administrative Hearings and Rules shall publish the Michigan register at least once each month. The Michigan register shall contain all of the following:

* * *

(i) Other official information considered necessary or appropriate by the State Office of Administrative Hearings and Rules."

The following table cites administrative rules promulgated during the year 2000, and indicates the effect of these rules on the Michigan Administrative Code (1979 ed.).

MICHIGAN ADMINISTRATIVE CODE TABLE
(2009 RULE FILINGS)

R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue
35.651	R	9	209.38	A	4	325.165	*	5
35.652	R	9	209.41	*	4	325.166	*	5
35.652a	R	9	209.42	*	4	325.168	*	5
35.653	R	9	209.43	*	4	330.7001	*	7
35.654	R	9	209.44	*	4	330.7199	*	7
125.190	*	8	209.51	*	4	330.7243	*	7
125.191	*	8	209.52	*	4	333.101	A	6
125.192	*	8	209.53	*	4	333.103	A	6
125.193	*	8	209.54	*	4	333.105	A	6
125.194	*	8	209.55	*	4	333.107	A	6
125.195	*	8	209.56	*	4	333.109	A	6
125.196	*	8	209.61	R	4	333.111	A	6
125.197	*	8	209.62	R	4	333.113	A	6
125.198	A	8	209.63	A	4	333.115	A	6
209.1	*	4	209.64	A	4	333.117	A	6
209.3	R	4	209.65	A	4	333.119	A	6
209.5	R	4	209.66	A	4	333.121	A	6
209.7	*	4	209.67	A	4	333.123	A	6
209.8	*	4	209.68	A	4	333.125	A	6
209.11	R	4	209.71	R	4	333.127	A	6
209.13	*	4	209.72	R	4	333.129	A	6
209.14	R	4	209.73	R	4	333.131	A	6
209.15	R	4	209.74	R	4	333.133	A	6
209.16	*	4	209.75	R	4	338.2511	A	9
209.17	R	4	209.76	A	4	338.7001	*	9
209.18	R	4	209.81	A	4	338.7001a	A	9
209.19	*	4	209.91	A	4	338.7002	*	9
209.21	R	4	209.101	A	4	338.7003	A	9
209.23	R	4	209.111	A	4	338.7101	*	9
209.24	*	4	299.1021	*	7	338.7102	*	9
209.25	*	4	299.1022	*	7	338.7103	*	9
209.26	*	4	299.1023	*	7	338.7104	*	9
209.28	*	4	299.1024	*	7	338.7105	*	9
209.31	A	4	299.1025	*	7	338.7107	*	9
209.32	A	4	299.1026	*	7	338.7107a	A	9
209.33	A	4	299.1027	*	7	338.7107b	A	9
209.34	A	4	299.1028	*	7	338.7108	R	9
209.35	R	4	322.55.1	A	9	338.7110	*	9
209.36	R	4	325.161	*	5	338.7111	A	9
209.37	A	4	325.163	*	5	338.7112	A	9

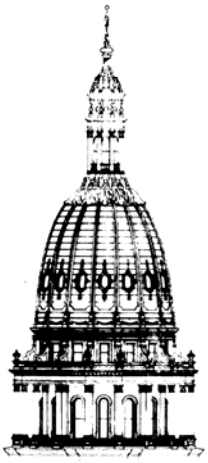
(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue
338.7114	A	9	339.245	*	9	397.42	A	6
338.7113	A	9	339.246	A	9	397.43	A	6
339.101	*	9	339.246a	A	9	397.44	A	6
339.103	A	9	339.249	*	9	397.45	A	6
339.201	*	9	339.251	*	9	397.46	A	6
339.202	*	9	339. 253	*	9	397.51	A	6
339.202a	A	9	339.255	*	9	397.61	A	6
339.203	*	9	339.257	*	9	397.62	A	6
339.203a	A	9	339.259	*	9	397.71	A	6
339.203b	A	9	339.261	*	9	397.72	A	6
339.203c	A	9	339.265	*	9	397.81	A	6
339.203d	A	9	339.267	*	9	397.82	A	6
339.204	*	9	339.269	*	9	397.83	A	6
339.205	*	9	339.271	A	9	397.84	A	6
339.205a	A	9	339.303	*	9	397.85	A	6
339.206	*	9	339.403	*	9	397.91	A	6
339.206a	A	9	340.1721a	A	7	397.92	A	6
339.207	*	9	340.1721e	A	7	400.1901	*	7
339.210	A	9	340.1851	A	7	400.1902	*	7
339.211	*	9	340.1852	A	7	400.1903	*	7
339.213	*	9	340.1853	A	7	400.1904	*	7
339.215	*	9	340.1854	A	7	400.1905	*	7
339.217	*	9	340.1855	A	7	400.1907	*	7
339.219	*	9	390.1901	A	9	400.1914	*	7
339.221	R	9	390.1902	A	9	400.1915	*	7
339.223	*	9	390.1903	A	9	400.1916	*	7
339.223a	A	9	390.1904	A	9	400.1917	*	7
339.225	*	9	390.1905	A	9	400.1921	*	7
339.226	A	9	390.1906	A	9	400.1931	*	7
339.229	*	9	390.1907	A	9	400.1932	*	7
339.230	A	9	390.1908	A	9	400.1934	*	7
339.231	*	9	397.01	A	6	400.1941	*	7
339.232	A	9	397.02	A	6	400.1942	*	7
339.233	*	9	397.03	A	6	400.1943	*	7
339.234	A	9	397.04	A	6	400.1944	*	7
339.234a	A	9	397.05	A	6	400.1951	*	7
339.235	*	9	397.21	A	6	400.1952	*	7
339.235a	A	9	397.22	A	6	400.11101	*	7
339.237	*	9	397.31	A	6	400.11102	*	7
339.243	*	9	397.41	A	6	400.11103	*	7

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)

R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue	R Number	Action	2009 MR Issue
400.11105	*	7	400.11403	A	7	460.20407	*	8
400.11106	*	7	400.11405	A	7	460.20408	*	8
400.11109	*	7	400.11407	A	7	460.20425	*	8
400.11113	*	7	400.11409	A	7	460.20430	*	8
400.11115	*	7	400.11411	A	7	460.20602	*	8
400.11119	*	7	400.11413	A	7	460.20604	*	8
400.11121	*	7	408.42901	A	6	460.20605	*	8
400.11122	A	7	408.42904	A	6	460.20606	*	8
400.11123	*	7	408.42907	A	6			
400.11125	*	7	408.42910	A	6			
400.11127	*	7	408.42913	A	6			
400.11131	*	7	408.42916	A	6			
400.11133	*	7	408.42919	A	6			
400.11135	R	7	408.42922	A	6			
400.11137	R	7	408.42925	A	6			
400.11139	R	7	408.42928	A	6			
400.11141	R	7	408.42931	A	6			
400.11143	*	7	408.42934	A	6			
400.11145	*	7	408.42937	A	6			
400.11146	A	7	408.42940	A	6			
400.11147	*	7	408.42943	A	6			
400.11149	*	7	431.1245	*	9			
400.11201	*	7	431.3055	*	9			
400.11203	*	7	431.3075	*	9			
400.11205	*	7	431.3295	*	9			
400.11207	*	7	431.1301	*	4			
400.11208	A	7	431.3090	*	4			
400.11209	*	7	431.4205	*	4			
400.11211	*	7	432.5	*	5			
400.11213	*	7	432.16	*	5			
400.11215	*	7	432.18	*	5			
400.11217	*	7	460.20101	*	8			
400.11219	*	7	460.20302	*	8			
400.11221	*	7	460.20304	*	8			
400.11224	A	7	460.20309	*	8			
400.11227	*	7	460.20320	R	8			
400.11302	A	7	460.20321	R	8			
400.11305	R	7	460.20326	*	8			
400.11319	*	7	460.20402	*	8			
400.11401	A	7	460.20405	*	8			

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)



CUMULATIVE INDEX

A

ARICULTURE, DEPARTMENT OF
Office of the Racing Commission General Rules (2009-9)

ATTORNEY GENERAL, DEPARTMENT OF
Opinions
Legality of radio-controlled fishing devices under MCL 324.48703(1)
OAG 7222 (2009-1)

Legal effect of the Department of Environmental Quality's operational memoranda
OAG 7223 (2009-1)

Governor's Authority to Direct the Department of Environmental Quality To Impose Certain Requirements in the Processing of Applications for Air Emissions Permits for Coal-fired Power Plants
OAG No. 7224 (2009-5)

Force and Effect of Gubernatorial Statements Made in Line Item Veto Transmittal Letters
OAG No. 7225 (2009-5)

Whether a Person Serving as a Township Supervisor and City Police Hold Incompatible Offices
OAG No. 7226 (2009-5)

Legality of proxy voting under Open Meetings Act
OAG Opinion No. 7226 (2009-6)

Application of the Sex Offenders Registration Act's Student Safety Zone Exception to Prisoners
OAG Opinion No. 7228 (2009-7)

* Proposed Rules

Issues relating to the intentional sinking of a vessel to expand recreational Diving opportunities on the Great Lakes bottomlands
OAG Opinion No. 7229 (2009-8)

C

COMMUNITY HEALTH, DEPARTMENT OF
Communicable and Related Diseases (2009-9*)
General Rules (2009-9)
General Rules (2009-9)
Michigan Care Improvement Registry (2009-5)
Michigan Medical Marihuana (2009-6)
Psychology Rules (2009-9)
Reporting of Non Suicidal, Non Medicinal Chemical Poisonings (2009-7*)
State Trauma Systems (2009-8*)

E

EDUCATION, DEPARTMENT OF
Special Education Programs and Services (2009-7)

ENERGY, LABOR & ECONOMIC GROWTH, DEPARTMENT OF
Boiler Rules (2009-2*)
Electric Interconnection and Net Metering Standards (2009-3*)
Gas Safety (2009-8)
Insurance Policy Forms - Nonconforming Clau (2009-9*)
Judges Retirement Board – General Hearing Rules (2009-3*)
Part 1 a. Abrasive Wheels (2009-6*)
Part 9 Michigan Housing and Community Development Fund, Michigan Housing and Community
Part 8 Electrical Code (2009-9*)
Development Program (2009-8)
Part 29, Communication Towers (2009-6)
Property and Casualty Reserves – Actuarial Opinion (2009-7*)
Public School Retirement Board – General Hearing Rules (2009-3*)
State Police Retirement Board – General Hearing Rules (2009-3*)
Workers' Compensation Health Care Services Rules (2009-5*
Unarmed Combat Rules (2009-9)

EVIRONMENTAL QUALITY, DEPARTMENT OF
Supplying Water to the Public (2009-9*)

EXECUTIVE OFFICE
Executive Reorganization
2009 EO's
No. 1 (2009-2)
No. 2 (2009-3)
No. 3 (2009-3)
No. 4 (2009-3)
No. 5 (2009-3)

* Proposed Rules

No. 6 (2009-5)
No. 7 (2009-5)
No. 8 (2009-5)
No. 9 (2009-5)
No. 10 (2009-5)
No. 11 (2009-5)
No. 12 (2009-5)
No. 13 (2009-5)
No. 14 (2009-5)
No. 15 (2009-5)
No. 16 (2009-6)
No. 17 (2009-6)
No. 18 (2009-6)
No. 19 (2009-6)
No. 20 (2009-6)
No. 21 (2009-7)
No. 22 (2009-8)

H

HISTORY ARTS AND LIBRARIES, DEPARTMENT OF
State Aid Rules (2009-6)

HUMAN SERVICES, DEPARTMENT OF
Corrections
Adult Foster Care Family Homes and Licensing Rules (2009-6)

Children's and Adult Foster Care Camps (2009-7)
Licensing Rules for Family and Group Child Care Homes (2009-7)

N

NATURAL RESOURCES, DEPARTMENT OF
Threaten and Endanger Species (2009-7)
Wilderness and Natural Areas (2009-9)

S

STATE POLICE, DEPARTMENT OF
Criminal Justice Information Systems (2009-2*)

T

TREASURY, DEPARTMENT OF
Children of Veterans Tuition Grant Program (2009-9)
Lottery Rules (2009-5)

* Proposed Rules