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

Published pursuant to § 24.208 of
The Michigan Compiled Laws

Issue No. 2—2018
(This issue, published February 15, 2018, contains documents filed from January 15, 2018 to February 1, 2018)

Compiled and Published by the Office of Regulatory Reinvention
Rick Snyder, Governor

Brian Calley, Lieutenant Governor
PREFACE

PUBLICATION AND CONTENTS OF THE MICHIGAN REGISTER

The Office of Regulatory Reform 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.
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 Office of Regulatory Reinvention 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 Office of Regulatory Reinvention 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, Office of Regulatory Reinvention, Romney Building – Eight Floor, 111 S. Capitol, Lansing, MI 48909
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: Office of Regulatory Reinvention, Romney Building –Eight Floor, 111 S. Capitol Avenue, Lansing, MI 48909. Checks Payable: State of Michigan. Any questions should be directed to the Office of Regulatory Reinvention (517) 335-8658.

INTERNET ACCESS

The Michigan Register can be viewed free of charge on the Internet web site of the Office of Regulatory Reinvention: www.michigan.gov/orr.

Issue 2000-3 and all subsequent editions of the Michigan Register can be viewed on the Office of Regulatory Reinvention 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.

Jeff Bankowski, Executive Director,
Office of Performance and Transformation
## 2018 PUBLICATION SCHEDULE

<table>
<thead>
<tr>
<th>Issue No.</th>
<th>Closing Date for Filing or Submission</th>
<th>Publication Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>January 15, 2018</td>
<td>February 1, 2018</td>
</tr>
<tr>
<td>2</td>
<td>February 1, 2018</td>
<td>February 15, 2018</td>
</tr>
<tr>
<td>3</td>
<td>February 15, 2018</td>
<td>March 1, 2018</td>
</tr>
<tr>
<td>4</td>
<td>March 1, 2018</td>
<td>March 15, 2018</td>
</tr>
<tr>
<td>5</td>
<td>March 15, 2018</td>
<td>April 1, 2018</td>
</tr>
<tr>
<td>6</td>
<td>April 1, 2018</td>
<td>April 15, 2018</td>
</tr>
<tr>
<td>7</td>
<td>April 15, 2018</td>
<td>May 1, 2018</td>
</tr>
<tr>
<td>8</td>
<td>May 1, 2018</td>
<td>May 15, 2018</td>
</tr>
<tr>
<td>9</td>
<td>May 15, 2018</td>
<td>June 1, 2018</td>
</tr>
<tr>
<td>10</td>
<td>June 1, 2018</td>
<td>June 15, 2018</td>
</tr>
<tr>
<td>11</td>
<td>June 15, 2018</td>
<td>July 1, 2018</td>
</tr>
<tr>
<td>12</td>
<td>July 1, 2018</td>
<td>July 15, 2018</td>
</tr>
<tr>
<td>13</td>
<td>July 15, 2018</td>
<td>August 1, 2018</td>
</tr>
<tr>
<td>14</td>
<td>August 1, 2018</td>
<td>August 15, 2018</td>
</tr>
<tr>
<td>15</td>
<td>August 15, 2018</td>
<td>September 1, 2018</td>
</tr>
<tr>
<td>16</td>
<td>September 1, 2018</td>
<td>September 15, 2018</td>
</tr>
<tr>
<td>17</td>
<td>September 15, 2018</td>
<td>October 1, 2018</td>
</tr>
<tr>
<td>18</td>
<td>October 1, 2018</td>
<td>October 15, 2018</td>
</tr>
<tr>
<td>19</td>
<td>October 15, 2018</td>
<td>November 1, 2018</td>
</tr>
<tr>
<td>20</td>
<td>November 1, 2018</td>
<td>November 15, 2018</td>
</tr>
<tr>
<td>21</td>
<td>November 15, 2018</td>
<td>December 1, 2018</td>
</tr>
<tr>
<td>22</td>
<td>December 1, 2018</td>
<td>December 15, 2018</td>
</tr>
<tr>
<td>23</td>
<td>December 15, 2018</td>
<td>January 1, 2019</td>
</tr>
<tr>
<td>24</td>
<td>January 1, 2019</td>
<td>January 15, 2019</td>
</tr>
</tbody>
</table>
CONTENTS

ADMINISTRATIVE RULES FILED
WITH SECRETARY OF STATE

Department of State Police
Training Division (2016-039)
    Test for Breath Alcohol ................................................................. 2-7

Department of Licensing and Regulatory Affairs
Director’s Office (2017-039)
    A standing Order for Dispensing Opioid Antagonists ...................... 8-9

Department of Licensing and Regulatory Affairs
Director’s Office (2017-048)
    Part 2. Walking Working Surfaces GI ............................................. 10-13

Department of Licensing and Regulatory Affairs
Director’s Office (2017-048)
    Part 3. Fixed Ladders GI ............................................................... 14-15

Department of Licensing and Regulatory Affairs
Director’s Office (2017-050)
    Part 4. Portable Ladders GI ......................................................... 16-17

Department of Licensing and Regulatory Affairs
Director’s Office (2017-051)

Department of Transportation
Bureau of Urban and Public Transportation (2017-072)
    Motor Bus Transportation ........................................................... 23-23

Department of Education
Superintendent of Public Instruction (2017-080)
    Special Education Programs and Services ..................................... 24-26

Department of Education
Superintendent of Public Instruction (2017-080)
    Fees for Transporting Pupils to or from Nonmandatory and Noncredited Events .......... 27-27
PROPOSED ADMINISTRATIVE RULES,
NOTICES OF PUBLIC HEARINGS

Department of Environmental Quality
Drinking Water and Municipal Assistance Division (2017-008)
   Supplying Water to the Public ........................................................................... 29-118
   Public Hearing Notice ....................................................................................... 119-119

Department of Environmental Quality
Oil, Gas and Mineral Division (2017-017)
   Oil and Gas Operations ....................................................................................... 120-140
   Public Hearing Notice ....................................................................................... 141-141

Department of Licensing and Regulatory Affairs
Director’s Office (2017-067)
   State Boundary Commission ............................................................................. 142-151
   Public Hearing Notice ....................................................................................... 152-152

EXECUTIVE ORDERS
AND
EXECUTIVE REORGANIZATION ORDERS

Executive Order No. 2018 - 2
Michigan Consortium of Advanced Networks ......................................................... 154-157

MICHIGAN ADMINISTRATIVE CODE TABLE

Table (2018 Session) ............................................................................................ 159-160

CUMULATIVE INDEX

Cumulative Index (2018) ....................................................................................... 161-162

BILLS SIGNED INTO LAW OR VETOED

Appendix Table 1 (2018 Session) (Legislative Service Bureau Pages (1-2)) ............. 163-163
MCL 24.208 states in part:

“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:

* * *

(f) Administrative rules filed with the secretary of state.”
These rules take effect 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 state police by section 190 of 1945 PA 327, MCL 259.190; and section 625a of 1949 PA 300, MCL 257.625a)

R 325.2651, R 325.2652, R 325.2653, R 325.2654, R 325.2655 are amended and R 325.2656 is rescinded to the Michigan Administrative Code as follows:

R 325.2651 Definitions.
Rule1. (1) As used in these rules:
(b) "Alcohol standard" means a certified alcohol standard.
(c) "Calendar month" means 12:01 a.m. on the first date of any of the 12 named months of the year to midnight on the last date of the same month.
(d) "Calendar week" means 12:01 a.m. Sunday to midnight Saturday.
(e) "Class" means a classification of operator status as certified by the department, based on training and function as specified in R 325.2658.
(f) "Department" means the department of state police.
(g) "Equipment" means evidential and preliminary breath alcohol test instruments, simulator devices, calibration stations, forms, and any accessories and supplies necessary for compliance with the procedures in these rules or law.
(h) "Evidential breath alcohol analysis" means chemical analysis of an essentially alveolar breath sample that indicates a specific result in grams of alcohol per 210 liters of breath.
(i) "Evidential breath alcohol test instrument" means an evidential breath testing device that indicates a specific result in grams of alcohol per 210 liters of breath.
(j) "Preliminary breath alcohol analysis" means chemical analysis of essentially alveolar breath samples that indicates the presence or absence of alcohol in a person's blood.
(k) "Preliminary breath alcohol test instrument" means a breath alcohol screening device that indicates the presence or absence of alcohol in a person's blood.
(l) " Shall" means that a function is mandatory.
(m) "Should" means that a function is recommended, but not mandatory, with reasonable deviation allowed.
(2) Terms used in the acts have the same meanings when used in these rules.
R 325.2652 Approved equipment.


(2) If the United States Department of Transportation discontinues the testing of evidential breath alcohol test instruments or the issuance of model specifications for such testing, only those instruments tested and approved by the department shall be used.

(3) An application for equipment approval shall be submitted to the department.

(4) Only equipment approved by the department for evidential and preliminary breath alcohol analysis shall be utilized by operators.

R 325.2653 Equipment accuracy.

Rule 3. (1) An appropriate class operator who has been certified in accordance with R 325.2658 shall verify an evidential breath alcohol test instrument for accuracy at least once each calendar week, or more frequently as the department may require. Alternatively, a pre-programmed self-test for accuracy may be initiated by the evidential breath alcohol test instrument and recorded by an appropriate class operator who has been certified in accordance with R 325.2658 if the instrument is so equipped and programmed. The tests for accuracy are not required to be performed within 7 days of each other. The test for accuracy shall be made using an alcohol standard that is approved by the department. For the evidential breath alcohol test instrument to meet the requirements for accuracy, a test result not exceeding +/- 5% shall be obtained when using a controlled device. Controlled devices include both of the following:

(a) Wet bath device that delivers an alcohol vapor concentration test result of .080 grams of alcohol per 210 liters of vapor.

(b) Compressed alcohol gas device that delivers a test result of .080 grams of alcohol per 210 liters of vapor after applying applicable altitude or topographic elevation correction factor supplied by the manufacturer. The correction factor may be applied by the operator or by the evidential breath alcohol test instrument if so pre-programmed.

(2) An appropriate class operator who has been certified in accordance with R 325.2658 shall verify for accuracy a preliminary breath alcohol test instrument at least monthly, or more frequently as the department may require. The test for accuracy shall be made using an alcohol standard that is approved by the department. For the preliminary breath alcohol test instrument to meet the requirements for accuracy, a test result not exceeding +/- 5% shall be obtained when using a controlled device. Controlled devices include both of the following:

(a) Wet bath device that delivers an alcohol vapor concentration of .080 grams of alcohol per 210 liters of vapor.

(b) Compressed alcohol gas device that delivers a test result of .080 grams of alcohol per 210 liters of vapor after applying applicable altitude or topographic elevation correction factor supplied by the manufacturer. The correction factor may be applied by the operator or by the preliminary breath alcohol test instrument calibration station if so pre-programmed.
(3) Approved evidential breath alcohol test instruments shall be inspected, verified for accuracy, and certified as to their proper working order within 120 days of the previous inspection by either an appropriate class operator who has been certified in accordance with R 325.2658 or a manufacturer-trained representatives approved by the department.

R 325.2654 Equipment repair and service.
Rule 4. (l) The repair and service of equipment approved by the department for evidential and preliminary breath alcohol analysis shall be at the expense of the agency using the equipment. The department or the agency using the equipment may arrange to have this service provided either by an appropriate class operator who has been certified in accordance with R 325.2658 or a manufacturer-trained authorized representatives approved by the department. (2) After repair or service and before being placed in service, evidential and preliminary breath alcohol test instruments shall be verified for accuracy in accordance with the provisions of R 325.2653 and records of verification shall be kept as required by the department.

R 325.2655 Techniques and procedures.
Rule 5. (1) A procedure that is used in conjunction with evidential breath alcohol analysis shall be approved by the department and shall be in compliance with all of the following provisions:
(a) Except as provided otherwise in these rules, evidential breath alcohol test instruments shall only be operated by appropriate class operators who have been certified in accordance with R 325.2658.
(b) All analyses shall be conducted following procedures approved by the department and using forms approved by the department as required.
(c) Records of operation, analyses, and results shall be maintained at the evidential breath alcohol test instrument location as prescribed by the department, and copies forwarded to the department as required.
(d) The department shall test samples from each lot of alcohol standards used in the state in conjunction with evidential breath alcohol test instruments. The department shall certify for use those lots of alcohol standards that are found to be proper in chemical composition.
(e) A person may be administered an evidential breath alcohol analysis on an evidential breath alcohol test instrument only after being observed for 15 minutes before collection of the breath sample by at least 1 appropriate class operators who is certified in accordance with R 325.2658. The observation period may be conducted by more than 1 operator working in concert. During the observation period, the person shall not have smoked, regurgitated, or placed anything in his or her mouth, except for the mouthpiece associated with the performance of the evidential breath alcohol analysis. The operator need not stare continuously at the person, but must be close enough to be aware of the person's actions and conditions. The operator may complete paperwork, enter data into the evidential breath alcohol test instrument, or conduct other reasonable tasks during the observation period provided the person is within the operator's field of vision. Breaks in the observation period lasting only a few seconds do not invalidate the observation provided the operator can reasonably determine that the person did not smoke, regurgitate, or place anything in his or her mouth during the breaks in the observation. (f) The operator shall request a second evidential breath alcohol from the person being tested and administered, unless the person refuses to give the second breath sample or a substance is found in the person's mouth subsequent to the first evidential breath alcohol analysis that could interfere with the breath sample result. Obtaining the first breath sample result is sufficient to meet the requirements for evidentiary purposes prescribed in section 625c of 1949 PA 300, MCL 257.625c. The purpose of obtaining a second breath sample result is to confirm the result of the first breath sample result. A second breath sample result shall not vary from the first breath sample result by more than the allowable variation listed in Table 1.
Table 1
Breath alcohol allowable variation of second breath sample result range from the first breath sample result

<table>
<thead>
<tr>
<th>Range</th>
<th>Allowable Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 - 0.14</td>
<td>+/- 0.01</td>
</tr>
<tr>
<td>0.15 - 0.24</td>
<td>+/- 0.02</td>
</tr>
<tr>
<td>0.25 - 0.34</td>
<td>+/- 0.03</td>
</tr>
<tr>
<td>0.35 - or more</td>
<td>+/- 0.04</td>
</tr>
</tbody>
</table>

If the variation is more than that allowed in Table 1, the operator shall request a third breath sample from the person being tested and a third breath sample result may be obtained. If the third breath sample result does not conform to the allowable variation in Table 1 of either of the first 2 tests, the person shall be requested to submit a blood or urine sample for analysis in accordance with MCL 257.625a and the procedures established in R 325.2671 to R 325.2677.

(g) The results of an evidential breath alcohol analysis of a person's breath shall be expressed in terms of grams of alcohol per 210 liters of breath, truncated to the second decimal place. For example, 0.237 found shall be reported as 0.23.

(2) A procedure that is used in conjunction with preliminary breath alcohol analysis must be approved by the department and shall be in compliance with all of the following provisions:
(a) Except as provided otherwise in these rules, preliminary breath alcohol test instruments shall only be operated by appropriate class operators who have been certified in accordance with R 325.2658
(b) A person may be administered a preliminary breath alcohol analysis on a preliminary breath alcohol test instrument only after the operator determines that the person has not smoked, regurgitated, or placed anything in his or her mouth for at least 15 minutes.
(c) Records shall be maintained at the preliminary breath alcohol test instrument location as prescribed by the department and copies shall be forwarded to the department as required.
(3) A person's welfare shall be protected by requesting medical assistance if the result of the evidential or preliminary breath alcohol analysis is 0.35 or more. Failure to request medical assistance does not affect the validity or evidential value of the result of an evidential or preliminary breath alcohol analysis.
pass the written examination, and demonstrate the required proficiency, in order to qualify for class I operator certification.

(b) A class II operator shall complete a class II training course approved by the department, obtain a minimum score of 70% on a written examination administered by the department, and demonstrate proficiency in the operation of an evidentiary breath alcohol test instrument to the department. The department shall provide a person who fails to pass the written examination or demonstrate the required proficiency a second opportunity to take the written examination or demonstrate the required proficiency. A person who fails on his or her second opportunity to successfully pass the written examination or demonstrate the required proficiency must retake the class II training course, successfully pass the written examination, and demonstrate the required proficiency, in order to qualify for class II operator certification.

(c) A class IIIA operator shall be currently certified as a class I operator, complete a class IIIA training course approved by the department, obtain a minimum score of 70% on a written examination administered by the department, and demonstrate proficiency in the verification and calibration of a preliminary breath alcohol test instruments to the department. The department shall provide a person who fails to pass the written examination or demonstrate the required proficiency a second opportunity to take the written examination or demonstrate the required proficiency. A person who fails on his or her second opportunity to successfully pass the written examination or demonstrate the required proficiency shall be required to retake the class IIIA training course, successfully pass the written examination, and demonstrate the required proficiency in order to qualify for class IIIA operator certification.

(d) A class IIIB operator shall be currently certified as a class II operator, complete a class IIIB training course approved by the department, obtain a minimum score of 70% on a written examination administered by the department, and demonstrate proficiency in the limited service of an evidentiary breath alcohol test instruments to the department. The department shall provide a person who fails to pass the written examination or demonstrate the required proficiency a second opportunity to take the written examination or demonstrate the required proficiency. A person who fails on his or her second opportunity to successfully pass the written examination or demonstrate the required proficiency shall be required to retake the class IIIB training course, successfully pass the written examination, and demonstrate the required proficiency in order to qualify for class IIIB operator certification.

(e) A class IVA operator shall be currently certified as a class III operator, complete a class IVA training course approved by the department, and demonstrate proficiency instructing class II and class IIIA operator training courses approved by the department. The department shall provide a person who fails to demonstrate the required proficiency a second opportunity to demonstrate the required proficiency. A person who fails on his or her second opportunity to demonstrate the required proficiency shall be required to retake the class IVA training course and demonstrate the required proficiency in order to qualify for class IVA operator certification.

(f) A class IVB operator shall be currently certified as a class IVA operator that has been designated by the department to administer the breath alcohol testing program for the state of Michigan. Before class IVB designation, the class IVB operator shall receive additional training in the repair and service of evidential and preliminary breath alcohol test instruments by the manufacturer of such instruments.

(3) The department shall develop and distribute to each certified operator a training manual for each of the operator’s classification. Training manuals must specify the functions performed by each class pursuant to this rule, as well as the knowledge and skills necessary to perform the appropriate functions.

(4) The primary functions of each class are described in Table 2. Additional functions not described in Table 2 may be designated by the department and described and explained in the appropriate training manual.
(5) A person who meets the training requirements and proficiency standards for operator certification in accordance with this rule shall be issued a certification card for the appropriate class by the department. The certification card shall remain the property of the department.

(6) A class I, class I, class IIIA, class IIIB, class IVA, and class IVB operator shall comply with all applicable department rules, policies, and procedures or the department may suspend his or her operator certification. A person whose operator certification has been suspended by the department shall return his or her certification card to the department within 7 days of receiving notice of the suspension. A person shall make a request for reinstatement of operator certification to the department in writing and, upon approval, the department may require the person to complete an operator training, pass a written examination, and/or demonstrate required proficiency.

Table 2

<table>
<thead>
<tr>
<th>OPERATOR FUNCTION</th>
<th>OPERATOR CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>Train and certify class I operators</td>
<td>X</td>
</tr>
<tr>
<td>Train and certify class II operators</td>
<td></td>
</tr>
<tr>
<td>Train and certify class IIIA operators</td>
<td>X</td>
</tr>
<tr>
<td>Train and certify class IIIB operators</td>
<td></td>
</tr>
<tr>
<td>Train and certify class IVA operators</td>
<td>X</td>
</tr>
<tr>
<td>Administer preliminary breath alcohol analyses using preliminary breath alcohol test instruments approved for use by the department</td>
<td>X</td>
</tr>
<tr>
<td>Administer evidentiary breath alcohol analyses using evidential breath alcohol test instruments approved for use by the department</td>
<td></td>
</tr>
<tr>
<td>Verify for accuracy and calibrate preliminary breath alcohol test instruments approved for use by the department</td>
<td>X</td>
</tr>
<tr>
<td>Verify for accuracy evidential breath alcohol test instruments approved for use by the department</td>
<td>X</td>
</tr>
<tr>
<td>Inspect, certify, service, repair, and calibrate evidentiary breath alcohol test instruments approved for use by the department for proper working order</td>
<td></td>
</tr>
<tr>
<td>Provide service on preliminary breath alcohol test instruments approved for use by the department</td>
<td></td>
</tr>
<tr>
<td>Conduct inspections for compliance with applicable department rules, policies, and procedures</td>
<td></td>
</tr>
<tr>
<td>Provide limited service on evidentiary breath alcohol test instruments specified by the department</td>
<td></td>
</tr>
</tbody>
</table>
ADMINISTRATIVE RULES

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF PROFESSIONAL LICENSING

A STANDING ORDER FOR DISPENSING OPIOID ANTAGONISTS

Filed with the Secretary of State on January 23, 2018

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

(By the authority conferred on the department of licensing and regulatory affairs by section 17744e, of 1978 PA 368, MCL 333.17744e and on the department of health and human services by sections 2221, 2226, and 2233, of 1978 PA 368, MCL 333.2221, 333.2226 and 333.2233)

R 338.201, R 338.202, R 338.203, and R 338.204 of the Michigan Administrative Code are added, as follows:

R 338.201 Definitions.
Rule 1. As used in these rules:
(a) "Code" means the public health code, 1978 PA 368, MCL 333.1101 to 333.25211.
(b) “Department" means the Michigan department of health and human services.
(c) “Eligible individuals” means individuals within this state, who are seeking opioid antagonists.
(d) “Standing order” means a standing order issued by the office of the chief medical executive pursuant to section 17744e of the code, MCL 333.17744e.

R 338.202 Dispensing opioid antagonists; standing order; requirements.
Rule 2. (1) Upon issuance of the standing order, a pharmacy shall register with the department before dispensing opioid antagonists under the standing order.
(2) A pharmacy dispensing an opioid antagonist under the standing order shall submit all of the following information, without individual identifiers, to the department on a quarterly basis, in a manner established by the department:
(a) The total number of doses of opioid antagonists dispensed under the standing order.
(b) The total number of doses of opioid antagonists dispensed under any type of prescription, including the standing order.
(c) The number of each type of formulation dispensed.
(d) Any other relevant information specified by the department.

R 338.203 Training for the administration of opioid antagonists; requirements.
Rule 3. (1) Pharmacists who dispense opioid antagonists under the standing order shall obtain training in the proper use and administration of opioid antagonists and in opioid overdose response. The training programs may be obtained online, in person, or in writing.
(2) Pharmacists who dispense opioid antagonists under the standing order shall provide educational material, approved by the office of the chief medical executive, on the administration of opioid antagonists to eligible individuals.

R 338.204 Referral to resource information.
Rule 4. Pharmacists who dispense opioid antagonists under the standing order shall provide the eligible individual with resource information regarding referral for treatment services.
R 408.10201 and R 408.10205 of the Michigan Administrative Code are amended, R 408.10202, R 408.10203, and R 408.10204 are added, and R 408.10206, R 408.10207, R 408.10208, R 408.10211, R 408.10213, R 408.10215, R 408.10217, R 408.10219, R 408.10220, R 408.10221, R 408.10223, R 408.10227, R 408.10228, R 408.10230, R 408.10231, R 408.10232, R 408.10233, R 408.10235, R 408.10236, R 408.10237, R 408.10239, R 408.10240, and R 408.10241 are rescinded, as follows:

GENERAL INDUSTRY SAFETY AND HEALTH STANDARD
PART 2. WALKING-WORKING SURFACES

R 408.10201 Scope.
Rule 201. This standard applies to all general industry workplaces. This standard covers all walking-working surfaces unless specifically excluded by an individual section of this standard.

R 408.10202 Adoption of federal standard.
(2) The regulation 29 C.F.R. 1910 Subpart D “Walking-Working Surfaces” includes all of the following:
(a) 29 C.F.R. Part §1910.21 “Scope and definitions.”
(b) 29 C.F.R. Part §1910.22 “General requirements.”
(c) 29 C.F.R. Part §1910.23 “Ladders.”
(d) 29 C.F.R. Part §1910.24 “Step bolts and manhole steps.”
(e) 29 C.F.R. Part §1910.25 “Stairways.”
(f) 29 C.F.R. Part §1910.26 “Dockboards.”
(g) 29 C.F.R. Part §1910.27 “Scaffolds and rope descent systems.”
(h) 29 C.F.R. Part §1910.28 “Duty to have fall protection and falling object protection.”
(i) 29 C.F.R. Part §1910.29 “Fall protection systems and falling object protection—criteria and practices.”
(j) 29 C.F.R. Part §1910.30 “Training requirements.”
(14) The availability information for the OSHA standards adopted in these rules is in R 408.10204 and MIOSHA standards referenced in these rules are in R 408.10205.
(15) The adopted federal regulations shall have the same force and effect as a rule promulgated under the Michigan Occupational Safety and Health Act, 1974 PA 154, MCL 408.1001 to 408.1094.

R 408.10203 Effective Dates.
Rule 203. The following are the effective dates of the adopted OSHA standards in Michigan:
(a) A reference to January 17, 2017, means the effective date of this standard in Michigan, which is 7 days after filing with the Secretary of State.
(b) A reference to May 17, 2017, means four months after the effective date of this standard in Michigan, which is 7 days after filing with the Secretary of State.
(c) A reference to November 20, 2017, means 10 months after the effective date of this standard in Michigan, which is 7 days after filing with the Secretary of State.
(e) A reference to November 18, 2036, means November 18, 2036.

R 408.10204 Availability of OSHA adopted regulations.
Rule 204. (1) The OSHA regulations adopted in these rules are available from the United States Department of Labor, Occupational Safety and Health Administration website: www.osha.gov, at no charge, as of the time of adoption of these rules.
(2) The regulations adopted in these rules are available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(3) The regulations adopted in these rules may be obtained from the publisher or may be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in this rule, plus $20.00 for shipping and handling.

R 408.10205 MIOSHA referenced standards.

Rule 205. The following Michigan Occupational Safety and Health Administration (MIOSHA) standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, at the time of adoption of these rules, is 4 cents per page.


(c) Construction Safety Standard Part 45 “Fall Protection,” R 408.44501 to R 408.44502.

(d) General Industry Safety and Health Standard Part 5 “Powered Platforms for Building Maintenance,” R 408.10501 to R 408.10592.

(e) General Industry Safety and Health Standard Part 33 “Personal Protective Equipment,” R 408.13301 to R 408.13398.


(g) General Industry Safety and Health Standard Part 50 “Telecommunications for General Industry,” R 408.15001 to R 408.15004.


R 408.10206 Rescinded.

R 408.10207 Rescinded.

R 408.10208 Rescinded.

R 408.10211 Rescinded.

R 408.10213 Rescinded.

R 408.10215 Rescinded.

R 408.10217 Rescinded.

R 408.10219 Rescinded.
R 408.10220 Rescinded.
R 408.10221 Rescinded.
R 408.10223 Rescinded.
R 408.10227 Rescinded.
R 408.10228 Rescinded.
R 408.10230 Rescinded.
R 408.10231 Rescinded.
R 408.10232 Rescinded.
R 408.10233 Rescinded.
R 408.10235 Rescinded.
R 408.10236 Rescinded.
R 408.10237 Rescinded.
R 408.10239 Rescinded.
R 408.10240 Rescinded.
R 408.10241 Rescinded.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 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.


R 408.10301, R 408.10305, R 408.10306, R 408.10307, R 408.10308, R 408.10310, R 408.10311, R 408.10321, R 408.10323, R 408.10324, R 408.10325, R 408.10326, R 408.10328, R 408.10331, R 408.10333, R 408.10335, R 408.10341, R 408.10342, R 408.10345, R 408.10351, R 408.10352, R 408.10353, R 408.10354, R 408.10355, R 408.10357, R 408.10361, R 408.10365, R 408.10371, and R 408.10372 of the Michigan Administrative Code are rescinded, as follows:

PART 3. FIXED LADDERS

R 408.10301 Rescinded.
R 408.10305 Rescinded.
R 408.10306 Rescinded.
R 408.10307 Rescinded.
R 408.10308 Rescinded.
R 408.10310 Rescinded.
R 408.10311 Rescinded.
R 408.10321 Rescinded.
R 408.10323 Rescinded.
R 408.10325 Rescinded.
R 408.10326 Rescinded.
R 408.10328 Rescinded.
R 408.10331 Rescinded.
R 408.10333 Rescinded.
R 408.10335 Rescinded.
R 408.10341 Rescinded.
R 408.10342 Rescinded.
R 408.10345 Rescinded.
R 408.10351 Rescinded.
R 408.10352 Rescinded.
R 408.10353 Rescinded.
R 408.10354 Rescinded.
R 408.10355 Rescinded.
R 408.10357 Rescinded.
R 408.10361 Rescinded.
R 408.10365 Rescinded.
R 408.10371 Rescinded.
R 408.10372 Rescinded.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 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.


R 408.10401, R 408.10403, R 408.10404, R 408.10406, R 408.10407, R 408.10408, R 408.10421, R 408.10422, R 408.10427, R 408.10428, R 408.10431, R 408.10432, R 408.10433, R 408.10441, R 408.10442, R 408.10443, R 408.10445, R 408.10446, R 408.10447, R 408.10451, R 408.10452, R 408.10454, and R 408.10456 of the Michigan Administrative Code are rescinded, as follows:

PART 4. PORTABLE LADDERS

R 408.10401 Rescinded.
R 408.10403 Rescinded.
R 408.10404 Rescinded.
R 408.10406 Rescinded.
R 408.10407 Rescinded.
R 408.10408 Rescinded.
R 408.10421 Rescinded.
R 408.10422 Rescinded.
R 408.10427 Rescinded.
R 408.10428 Rescinded.
R 408.10431 Rescinded.
R 408.10432 Rescinded.
R 408.10433 Rescinded.
R 408.10441 Rescinded.
R 408.10442 Rescinded.
R 408.10443 Rescinded.
R 408.10445 Rescinded.
R 408.10446 Rescinded.
R 408.10447 Rescinded.
R 408.10451 Rescinded.
R 408.10452 Rescinded.
R 408.10454 Rescinded.
R 408.10456 Rescinded.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45(a)(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.


R 408.10001, R 408.10003, R 408.10004, R 408.10005, R 408.10011, R 408.10012, R 408.10013, R 408.10015, R 408.10017, R 408.10026, R 408.10031, R 408.10034, and R 408.10036 of the Michigan Administrative Rules are amended, R 408.10002 is added, and R 408.10016, R 408.10021, R 408.10022, and R 408.10098 are rescinded, as follows:

R 408.10001 Scope.
Rule 1. This standard sets forth general rules for the employer and the employee in, around and about a place of employment, except that where a specific rule is set forth in another standard, the general rule is preempted.

R 408.10002 Referenced standard.
Rule 2. The Michigan Occupational Safety and Health Administration (MIOSHA) General Industry Safety and Health Standard Part 27 “Woodworking Machinery,” R 408.12701 to R 408.12799, is referenced in these rules. Up to 5 copies of this standard may be obtained at no charge from the Michigan Department of Licensing and Regulatory Affairs, MIOSHA Regulatory Services Section, 530 West Allegan Street, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

R 408.10003 Definitions; E to M.
Rule 3. (1) "Equivalent" means an alternate design or feature that provides an equal or greater degree of safety.
(2) "Flammable" means to ignite easily, burn intensely, or to have a rapid rate of flame spread.
(3) "Hazard" means an unsafe condition or procedure that could result in an injury.
(4) "Machine" means a powered instrument or device that transmits force or motion in a predetermined manner. It may be fixed in place or transportable, but is not hand-held.

R 408.10004 Definitions; P.
   Rule 4. (1) "Pinch point" means a point at which it is possible to be caught between the moving parts of a machine, or between the moving and stationary parts of a machine or between material and any part of a machine.
   (2) "Point of operation" means the point on a machine where work is performed.
   (3) "Power failure" means the loss of power from the energy source.

R 408.10005 Definitions; S.
   Rule 5. (1) "Shall" means mandatory.
   (2) "Should" means recommended.

R 408.10011 Employer responsibilities.
   Rule 11. An employer shall comply with all of the following:
   (a) Provide training to each newly assigned employee regarding the operating procedures, hazards, and safeguards of the job.
   (b) Not knowingly authorize a process, machine, or equipment to be used that does not meet applicable state safety standards.
   (c) Provide a chain, bracket, or other device and assure its use at all times to restrain compressed gas cylinders from falling.

R 408.10012 Employee responsibilities.
   Rule 12. An employee shall comply with all of the following:
   (a) Not operate a machine or equipment until trained in the operating procedures, hazards, and safeguards and has been assigned to do so by the employer.
   (b) Report to the supervisor any recognized hazard.
   (c) Use required personal protective equipment or devices as prescribed in this standard or a MIOSHA specific standard.
   (d) Not remove a guard or other safety device except for authorized servicing purposes. The guard or other safety device shall be replaced or equivalent guarding provided before the machine or equipment is returned to normal operation.

R 408.10013 Personal protective equipment.
   Rule 13. (1) The personal protective equipment shall be of safe design and construction to perform the intended function.
   (2) Personal protective equipment required by applicable MIOSHA standards and employee owned equipment shall be maintained by an established program to assure the continuing adequacy, condition, and sanitation of the equipment.

R 408.10015 Housekeeping.
   Rule 15. (1) Materials, including scrap and debris, shall be piled, stacked, or placed in a container in a manner that does not create a hazard to an employee.
   (2) Where vegetation is a hazard, an employee shall be protected by vegetation control or other means of protection, such as, but not limited to, a barrier, personal protective equipment, or medication.
   (3) A storage area shall be kept free from accumulations of materials that constitute a hazard from fire, explosion, or pest harborage.
R 408.10016 Rescinded.

R 408.10017 Lubrication.
Rule 17. (1) Lubrication shall be accomplished by 1 of the following:
   (a) Manually, when the machine can be shut off and locked out.
   (b) Automatic pressure or gravity feed system.
   (c) Extension pipe or tube leading to an area outside of guards or away from any hazard.
   (d) A means of lubrication that would provide equal or greater protection than subdivision (a), (b), or 
      (c) of this rule, for the employee.
(2) Where access through a guard is provided, and the opening exceeds the table 2 specifications, the 
opening shall be provided with a hinged or sliding self-closing cover.

R 408.10021 Rescinded.

R 408.10022 Rescinded.

R 408.10026 De-railers, bumper blocks, and clearance signs.
Rule 26.(1) Where rolling railroad cars on a spur track could make contact with a railcar being loaded 
or unloaded, repaired or serviced, or enter a building, work or traffic area, de-railers, bumper blocks, a 
blue flag or blue light, or other equivalent protection shall be used .
(2) A visible "Close Clearance" sign shall be used to indicate close clearance between a railcar and an 
adjacent fixed object if the fixed object is located less than 8 1/2 feet from the center of a straight track 
and 9 feet from the center of a curved track.

R 408.10031 Machine installations.
Rule 31. (1) A machine installed on a bench, table, or stand shall be designed or secured to prevent 
unintentional movement or tipping.
(2) A stationary machine shall be anchored or provided with anti-slip pads to prevent unintentional 
movement.

R 408.10034 Machine guards and devices.
Rule 34. (1) Two hand-control devices shall be the anti-tie down type and located in a manner to 
prevent bridging. Operation shall require manual activation of both controls until a point is reached in 
the cycle where the operator cannot remove his or her hands and place them within a pinch point. If 
repeating would cause an injury, an anti-repeat device shall be incorporated into the control system.
(2) Guards shall be secured to the machine, if possible, or to other fixed objects. The guard shall not 
create a hazard in itself.
(3) A point of operation guard or device shall be as prescribed in a specific standard, or, in the absence 
of a specific standard, shall be designed and constructed, when required, to prevent the machine operator 
exposed to the hazard from having any part of his or her body in the hazardous area during the operating 
cycle. A guard or device for the point of operation of a nonproduction arbor press or straightening press 
is not required if the machine is equipped with a hand control that is designed to stop the ram action or 
return the ram to the up position when released .
(4) Hand tools shall not be substituted for the required guarding or point of operation devices, except 
that a hand tool may be used as prescribed in subrule (5) of this rule for a press brake operation. Where 
hand tools are used for placing into, and removing material from, a point of operation, they shall be 
designed so that the operator is not required to place a hand within the point of operation.
(5) A bending operation on a press brake involving less than 25 pieces of 1 specific bend, if not guarded, shall require the use of a hand tool when the operator must hold the work piece within 4 inches of the point of operation, and a conspicuous sign shall be posted on the machine stating "Hand tools shall be used to hold stock."

(6) A revolving barrel, container, or drum exposed to contact shall be guarded by a standard barrier, an enclosure, or equivalent protection where a hazard exists. Access through a standard barrier or enclosure shall be by a gate equipped with an interlock, which shall disconnect the power when the gate is opened and require manual re-actuation of a start button. A constant pressure jog control that bypasses the interlock may be used to aid loading and unloading.

(7) Blades of a fan, located within 7 feet of a floor or working level and used for ventilation or cooling of an employee, shall be guarded with a firmly affixed or secured guard. Any opening in the guard shall have not more than 1 of its dimensions more than 1 inch and the distance to the blade shall not be less than that prescribed in Table 1.

(8) A fan used in process cooling whose blade is less than 7 feet above the floor or working level shall meet the distance requirements of Table 2. Where the openings are larger than those shown in Table 2, the distance from the guard to the blade shall prevent any part of the employee's body from making contact with the blade.

(9) When an employee is exposed to a hazard created by a pinch point other than point of operation, the hazard shall be guarded or the employee otherwise protected.

(10) A band or circular saw shall be guarded as prescribed in General Industry Safety and Health Standard Part 27 “Woodworking Machinery,” as referenced in R 408.10002.

(11) An extractor, parts washer, or tumbler, manually controlled and equipped with an inside revolving cylinder, shall be equipped with a cover or door interlocked in such a manner as to prevent opening the door when the inside cylinder is in motion, and to prevent power operation of the inside cylinder when the cover or door is open. An inch control or constant pressure control which bypasses the interlock may be used to aid loading and unloading.

(12) An employee shall not place his or her body beneath equipment, such as vehicles, machines, or materials, supported only by a jack, overhead hoist, chain fall, or any other temporary single supporting means, unless safety stands, blocks or other support system capable of supporting the total imposed weight is used to protect the employee in case of failure of the supporting system.

### TABLE 1

<table>
<thead>
<tr>
<th>Smallest dimension in guard (inches):</th>
<th>Minimum distance from guard to blade:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 0 up to 1/4 inclusive</td>
<td>1/2 inch</td>
</tr>
<tr>
<td>Greater than 1/4 up to 3/8 inclusive</td>
<td>1 1/2 inches</td>
</tr>
<tr>
<td>Greater than 3/8 up to 1/2 inclusive</td>
<td>2 1/2 inches</td>
</tr>
<tr>
<td>Greater than 1/2 up to 3/4 inclusive</td>
<td>4 inches</td>
</tr>
<tr>
<td>Greater than 3/4 up to 1 inclusive</td>
<td>6 times the smallest dimension</td>
</tr>
</tbody>
</table>
TABLE 2

<table>
<thead>
<tr>
<th>Distance of opening from point of operation hazard (inches)</th>
<th>Maximum width opening (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2 to 1 1/2</td>
<td>1/4</td>
</tr>
<tr>
<td>1 1/2 to 2 1/2</td>
<td>3/8</td>
</tr>
<tr>
<td>2 1/2 to 3 1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>3 1/2 to 5 1/2</td>
<td>5/8</td>
</tr>
<tr>
<td>5 1/2 to 6 1/2</td>
<td>3/4</td>
</tr>
<tr>
<td>6 1/2 to 7 1/2</td>
<td>7/8</td>
</tr>
<tr>
<td>7 1/2 to 12 1/2</td>
<td>1 1/4</td>
</tr>
<tr>
<td>12 1/2 to 15 1/2</td>
<td>1 1/2</td>
</tr>
<tr>
<td>15 1/2 to 17 1/2</td>
<td>1 7/8</td>
</tr>
<tr>
<td>17 1/2 to 31 1/2</td>
<td>2 1/8</td>
</tr>
</tbody>
</table>

R 408.10036 Air under pressure.

Rule 36. (1) Air pressure at the discharge end of a portable air blow gun or portable air hose shall be less than 30 pounds per square inch gauge when dead-ended.

(2) When air under pressure is used to remove chips and dust, a chip guard, such as a fixed or removable shield, safely located, shall be provided to protect an employee in an adjacent area.

(3) Air under pressure, used in a manner which could cause injury, shall not be used for cleaning clothes while being worn or directly applied to any part of the body.

(4) Air under pressure shall not be used to move flammable dust in an area containing open flames or spark producing equipment.

(5) Air under pressure shall not be used to remove toxic dusts in an employee environment.

(6) An employee shall be protected by guards or location when pressure tests are being performed on materials or equipment where rupture or failure would create a hazard.

R 408.10098 Rescinded.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 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 transportation by section 39 of Act No. 432 of the Public Acts of 1982, being S474.139 of the Michigan Compiled Laws)

R 474.101, R 474.102, R 474.103, R 474.104, R 474.105, and R 474.106 of the Michigan Administrative Code are rescinded, as follows:

R 474.101 Rescinded.

R 474.102 Rescinded.

R 474.103 Rescinded.

R 474.104 Rescinded.

R 474.105 Rescinded.

R 474.106 Rescinded.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45(a)(6) of 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By the authority of the superintendent of public instruction under sections 1701 and 1703 of 1976 PA 451, MCL 380.1701 and MCL 380.1703, and Executive Reorganization Order No. 1996-6, MCL 388.993)

R 340.1719 of the Michigan Administrative Code is rescinded and R 340.1707, R 340.1723c, R 340.1724d, R 340.1742, and R 340.1799c of the Code are amended as follows:

R 340.1707   Deaf or hard of hearing.
Rule 7. (1) The term "deaf or hard of hearing" refers to students with any type or degree of hearing loss that interferes with development or adversely affects educational performance. "Deafness" means a hearing loss that is so severe that the student is impaired in processing linguistic information through hearing, with or without amplification. The term "hard of hearing" refers to students who have permanent or fluctuating hearing loss that is less severe than the hearing loss of students who are deaf and that generally permits the use of the auditory channel as the primary means of developing speech and language skills.
(2) A determination of impairment must be based upon a full and individual evaluation by a multidisciplinary evaluation team, which shall include an audiologist and an otolaryngologist or otologist.

R 340.1719   Rescinded.

R 340.1723c   Right to independent educational evaluation.
Rule 23c. (1) Each public agency shall provide parents with information about independent educational evaluations at public expense. The information must include all of the following:
(a) Criteria regarding credentials for qualified examiners.
(b) Suggested sources and locations.
(c) Procedures for reimbursement.
(d) Reasonable expected costs.
(e) Notification that the parent is not restricted to choosing from sources suggested by the public agency.
(2) A parent has the right to an independent educational evaluation at public expense if the parent disagrees with an evaluation obtained by the public agency. A parent is entitled to only 1 independent educational evaluation at public expense each time the public agency conducts an evaluation with which
the parent disagrees. The parent shall submit the parent's disagreement and request in written, signed, and dated form. However, the public agency may initiate a hearing under R 340.1724f to show that its evaluation is appropriate. The public agency shall respond, in writing, to the request within 7 calendar days of its receipt by indicating the public agency's intention to honor the request or to initiate the hearing procedure under R 340.1724f. If the hearing officer determines that the evaluation is appropriate, then the parent still has the right to an independent educational evaluation, but not at public expense.

(3) The public agency shall disclose to the parent, before evaluation, whether the examiner who was contracted to provide an independent educational evaluation provides services to the public agency that are in addition to the independent educational evaluation.

(4) Unless agreeable to the parent, an examiner or examiners who otherwise or regularly contract with the public agency to provide services shall not conduct an independent educational evaluation.

R 340.1724d Mediation.
Rule 24d. (1) A parent or public agency may request a mediation process in which the relief sought consists of a mutually agreeable settlement between the parties of a dispute that might be the subject of a state special education complaint under part 8 of the rules or a due process complaint under R 340.1724f.

(2) The superintendent of public instruction shall approve procedures regarding the mediation process.

R 340.1742 Programs for students who are deaf or hard of hearing.
Rule 42. If a public agency operates programs and services for students who are deaf or hard of hearing, it shall operate those programs and services as follows:

(a) A special class with 1 teacher shall have an enrollment of not more than 7 students.

(b) The public agency shall provide group amplification devices deemed necessary for instruction by the individualized education program team. The public agency shall ensure that the amplification devices worn by students who are deaf or hard of hearing in school are functioning properly.

R 340.1799c Teachers of students who are deaf or hard of hearing; special requirements.
Rule 99c. (1) The teacher education program for teachers of students who are deaf or hard of hearing must include a minimum of 30 semester or equivalent hours. The teacher education program for teachers of students who are deaf or hard of hearing must meet the council on education of the deaf standards or must, at a minimum, include 30 semester or equivalent hours relating to all of the following areas:

(a) Language and linguistics.

(b) Audiology and speech science.

(c) Psychology.

(d) Education.

(2) Students shall complete a program that is designed to develop all of the following competencies:

(a) Knowledge of linguistics, theories of language development, and the various special methods used to assess and develop language competence.

(b) Ability to utilize an individual diagnostic profile of the student's expressive and receptive language skills.

(c) Ability to integrate language development with the teaching of English, mathematics, social studies, science, and other academics.

(d) Ability to use various and combined modes, manual and oral, in both expressive and receptive communication with students who are deaf or hard of hearing.

(e) Knowledge of the anatomy, physiology, and pathology of the organs of speech and hearing.
(f) Knowledge of audiological assessment information and its application to the individualized education program of a student who is deaf or hard of hearing.
(g) Knowledge of personal and group amplification systems, including their basic maintenance.
(h) Ability to incorporate and teach appropriate procedure to maximize the use of speech, speech reading, and auditory skills.
(i) Ability to use systematic observational techniques for establishing baseline data, evaluating problem areas, and documenting and assessing progress.
(j) Knowledge of the psychological and sociological impact of severe/profound hearing loss, including information about the community/culture of adult persons who are deaf or hard of hearing.
(k) Ability to identify and use local, state, and national resources in support of students who are deaf or hard of hearing, their parents, and their educational program.
(l) Ability to orient parents, general education school staff, and administrators to the unique needs and learning styles of students who are deaf or hard of hearing.
(m) Ability to assess communication, academic, and social/emotional development of students who are deaf or hard of hearing.
(n) Ability to relate diagnostic information in functional terms to parents and support service specialists.
(o) Ability to design and implement an educational program appropriate to the individual student's communication, academic, prevocational, and social needs.
(p) Ability to modify and adapt procedures for teaching reading, math, and other academic subjects to students who are deaf or hard of hearing.
(3) Before assignment to directed student teaching, each student teacher shall spend a minimum of 60 clock hours in programs with students who are deaf or hard of hearing utilizing various communication modes, both manual and oral.
(4) The council on education of the deaf standards, as cited in subrule (1) of this rule, are adopted by reference in these rules and are available from the Council on Education of the Deaf, Gallaudet University, 800 Florida Avenue, N.E., Washington, D.C. 20002-3695, and also from the Michigan Department of Education, Office of Special Education, 608 W. Allegan St., P.O. Box 30008, Lansing, MI, 48909, at no cost for reproduction.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 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 superintendent of public instruction by section 10(b) of 1964 PA 287, MCL 388.1010(b); section 9 of 1990 PA 187, MCL 257.1809; section 1332 of 1976 PA 451, MCL 380.1332; and Executive Reorganization Orders 1996-6 and 1996-7, MCL 388.993 and MCL 388.994)

R 340.241 and R 340.242 of the Michigan Administrative Code are amended as follows:

R 340.241 Definitions.
Rule 1. As used in R 340.242:
(a) “Noncredit event” means an activity that pupils are not required to attend in order to receive full credit for a prescribed course of study or to earn a higher grade in a particular course.
(b) “Nonmandatory event” means an activity in which pupils are engaged of their own volition and that does not in any way affect promotion from grade to grade or high school graduation.

R 340.242 Calculation of charge.
Rule 2. The board of education of a school district may collect a fee for transporting district pupils to or from nonmandatory and noncredit events sponsored by the school district. The fee charged to each pupil must not exceed the pupil’s pro rata share of the expenses for the trip involved. The board of education of a school district shall calculate each pupil’s pro rata share of the trip expenses by adding all of the following costs and dividing the total by the number of pupils to be transported:
(a) The cost per mile for the travel of the school bus multiplied by the number of miles to be traveled on the trip.
(b) The increased cost of insurance necessary because of the trip.
(c) The actual cost of the salary of drivers for the trip, including the time spent driving, waiting for pupils to board and leave the bus, and waiting for pupils at the trip destination.
(d) The actual cost of the salary of attendants and chaperones employed for supervision of pupils during the trip.
(e) The trip expenses of drivers, attendants, and chaperones, including lodging, meals, necessary telephone calls, and gratuities.
MCL 24.242(3) states in part:

“... the agency shall submit a copy of the notice of public hearing to the Office of Regulatory Reform 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 Office of Regulatory Reform.”

MCL 24.208 states in part:

“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:

* * *

(d) Proposed administrative rules.

(e) Notices of public hearings on proposed administrative rules.”
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45(a)(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 environmental quality by section 5 of 1976 PA 399, MCL 325.1005)

R 325.10102, R 325.10105, R 325.10108, R 325.10401a, R 325.10405, R 325.10410, R 325.10413, R 325.10420, R 325.10604f, R 325.10710a, R 325.10710b, R 325.10710d, R 325.11506, R 325.11604, and R 325.11606 of the Michigan Administrative Code are amended as follows:

R 325.10102 Definitions; A, B.

Rule 102. As used in these rules:

(a) "Act" means 1976 PA 399, MCL 325.1001 to 325.1023 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 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 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) "Asset management program" means a program that identifies the desired level of service at the lowest life cycle cost for rehabilitating, repairing, or replacing the assets associated with the waterworks system.

(j) "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.

(k) "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.

(l) "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.

(m) "Bottled drinking water" means water that is ultimately sold, provided, or offered for human consumption in a closed container.

(n) “Business day” means Monday through Friday, except for federal or state holidays.

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.§300f et seq. and the 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 (2014) 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 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.

(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 running annual average under R 325.10610 shall be is 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.

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

(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.

(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 supply of its determination.

(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.

(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.

(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.

(o) "Initial compliance period" means January 1993 to December 1995. For a 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.

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

(s) "Level 1 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the supply triggered the assessment. Level 1 assessment shall be conducted by the supply operator or owner. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (for example, whether a ground water supply is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The supply shall conduct the assessment consistent with any department directives that tailor specific assessment elements with respect to the size and type of the supply and the size, type, and characteristics of the distribution system.

(t) "Level 2 assessment" means an evaluation to identify the possible presence of sanitary defects, defects in distribution system coliform monitoring practices, and (when possible) the likely reason that the supply triggered the assessment. A level 2 assessment provides a more detailed examination of the supply (including the supply’s monitoring and operational practices) than does a level 1 assessment through the use of more comprehensive investigation and review of available information, additional internal and external resources, and other relevant practices. Level 2 assessment shall be conducted by the department. Minimum elements include review and identification of atypical events that could affect distributed water quality or indicate that distributed water quality was impaired; changes in distribution system maintenance and operation that could affect distributed water quality (including water storage); source and treatment considerations that bear on distributed water quality, where appropriate (for example, whether a ground water supply is disinfected); existing water quality monitoring data; and inadequacies in sample sites, sampling protocol, and sample processing. The department shall conduct the assessment tailoring specific assessment elements with respect to the size and type of the supply and the size, type, and characteristics of the distribution system. The supply shall comply with any expedited actions or additional actions required by the department in the case of an E. coli MCL violation.

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

(v) "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.

(w) "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.

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

R 325.10108 Definitions; S.
Rule 108. As used in these rules:
(a) "Sanitary defect" means a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place.
(b) "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.
(c) "Seasonal supply" means a noncommunity water supply that is not operated as a public water supply on a year-round basis and starts up and shuts down at the beginning and end of each operating season.
(d) "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.
(e) "Service line" means the pipe from the discharge of the corporation fitting to customer site piping or to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.
(f) "Service line sample" means a 1-liter sample of water that has been standing for not less than 6 hours in a service line.
(g) "Shift operator" means a certified operator, other than the operator in charge, who is in charge of an operating shift of a waterworks system.
(h) "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.
(i) "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.
(j) "SOC" means synthetic organic chemical.
(k) "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.
(l) "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.
(m) "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.
(n) "Subpart H system" or "subpart H supply" means a public water supply using surface water or ground water under the direct influence of surface water as a source.
(o) "Suction line" means a pipe or line that is connected to the inlet side of a pump or pumping equipment.
(p) "Supplier of water" or "supplier" means a person who owns or operates a public water supply, and includes a water hauler.
(q) "Surface water" means water that rests or flows on the surface of the ground.
(r) "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.

"System with a single service connection" means a public water supply that supplies drinking water to consumers through a single service line.

PART 4. PUBLIC NOTIFICATION AND PUBLIC EDUCATION

R 325.10401a General public notification requirements.

Rule 401a. (1) Each community water supply, nontransient noncommunity water supply, or transient noncommunity water 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 supplies, where granted permission by the department.
   (iii) Fluoride level above 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) Supplies shall provide public notice to the following:
   (a) Each supply shall provide public notice to persons served by the supply as specified in this part. Supplies that sell or otherwise provide drinking water to other public water supplies, such as to
consecutive supplies, shall give public notice to the consecutive supply. The consecutive supply shall provide public notice to the persons it serves.

(b) If a public water 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 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 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 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 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 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 supply and to the media.

Table 1 Violations and other situations requiring public notice
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL/MRDL/TT violations</th>
<th>Monitoring, testing, &amp; reporting procedure violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
<tr>
<td></td>
<td>Citation</td>
<td>Tier of public notice required</td>
</tr>
</tbody>
</table>

I. Violations of MCL, MRDL, treatment technique, monitoring and reporting, and testing procedure requirements:

A. Microbiological contaminants

<table>
<thead>
<tr>
<th>Total coliform until March 31, 2016</th>
<th>2</th>
<th>R 325.10602(a) and (b)</th>
<th>3</th>
<th>R 325.10704 to R 325.10707a R 325.10702(2) R 325.10707b(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total coliform (TT violations resulting from failure to perform assessments or corrective actions, monitoring violations, and reporting violations) beginning April 1, 2016</td>
<td>2</td>
<td>R 325.10704j(2)(a)</td>
<td>3</td>
<td>R 325.10704j(3) R 325.10704j(4)(a)</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-----------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Citation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seasonal supply failure to follow department-approved start-up plan</td>
<td>2</td>
<td>R 325.10704j(2)(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>before serving water to the public or failure to provide certification to</td>
<td>3</td>
<td>R 325.10704j(4)(c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the department beginning April 1, 2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fecal coliform/E. coli until March 31, 2016</td>
<td>1</td>
<td>R 325.10602(c)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1, 3</td>
<td>R 325.10704(3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R 325.10707b(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. coli (MCL, monitoring, and reporting violations) beginning April 1, 2016</td>
<td>1</td>
<td>R 325.10704j(1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10704j(3)(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R 325.10704j(4)(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>R 325.10704j(4)(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. coli (TT violations resulting from failure to perform level 2 Aassessments or corrective action) beginning April 1, 2016</td>
<td>2</td>
<td>R 325.10704j(2)(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Tier of public notice required</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Citation</td>
<td>Citation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turbidity (for TT violations resulting from a single exceedance of maximum allowable turbidity level)</td>
<td>2, 1 (^3) R 325.10611b</td>
<td>3 R 325.10605 R 325.10720(2)(a) and (b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violations, other than violations resulting from single exceedance of max. allowable turbidity level (TT)</td>
<td>2 R 325.10611, R 325.10611a, and R 325.10611b</td>
<td>3 R 325.10605 R 325.10720(2)(c) and (d)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violations of disinfection profiling and benchmarking</td>
<td>N/A N/A</td>
<td>3 R 325.10722</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violations of filter backwash recycling provisions</td>
<td>2 R 325.10611e</td>
<td>3 R 325.1507</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Violations of enhanced treatment for cryptosporidium | 2  
R 325.10611e to R 325.10611m | 2, 3  
40 CFR §141.701 to §141.705, as adopted by reference in R 325.10720b, R 325.10720c and R 325.10720d. Failure to collect 3 or more samples for Cryptosporidium analysis is a Tier 2 violation requiring special notice as required in R 325.10408d. All other monitoring and testing procedure violations are Tier 3. |
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL/MRDL/TT violations</th>
<th>Monitoring, testing, &amp; reporting procedure violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
<tr>
<td>Violations of rules for ground water supplies subject to R 325.10612</td>
<td>2</td>
<td>R 325.10612b</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Inorganic chemicals (IOC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antimony</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Arsenic</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Asbestos (fibers longer than 10 µm)</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Barium</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Beryllium</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Cadmium</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Chromium (total)</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Cyanide (free)</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Tier of public notice</td>
</tr>
<tr>
<td></td>
<td>required</td>
<td>required</td>
</tr>
<tr>
<td>Fluoride</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Mercury (inorganic)</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Nitrate (as nitrogen)</td>
<td>1</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Nitrite (as nitrogen)</td>
<td>1</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Total nitrate and nitrite (as nitrogen)</td>
<td>1</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Selenium</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Thallium</td>
<td>2</td>
<td>R 325.10604c(1)</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Citation</td>
</tr>
<tr>
<td></td>
<td>required</td>
<td></td>
</tr>
<tr>
<td>C. Lead and copper (action level for lead is 0.015 mg/l through December 31, 2023 and 0.010 mg/l beginning January 1, 2024; action level for copper is 1.3 mg/l)</td>
<td>R 325.10604f(1) – (5)</td>
<td>R 325.10710a to R 325.10605</td>
</tr>
<tr>
<td>Lead and copper rule (TT)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>D. Synthetic organic chemicals (SOC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-D</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>2,4,5-TP (silvex)</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Alachlor</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Atrazine</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Benzo(a)pyrene (PAHs)</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Carbofuran</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Chlordane</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Dalapon</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Di (2-ethylhexyl) adipate</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Di (2-ethylhexyl) phthalate</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Dibromochloropropane</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Dinoseb</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Dioxin (2,3,7,8-TCDD)</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Citation</td>
</tr>
<tr>
<td></td>
<td>required</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tier of public notice required</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Citation</td>
</tr>
<tr>
<td>Diquat</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Endothall</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Endrin</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Ethylene dibromide</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Glyphosate</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Heptachlor</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Heptachlor epoxide</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Hexachlorobenzene</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Hexachlorocyclopentadiene</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Lindane</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Methoxychlor</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Oxamyl (vydate)</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Pentachlorophenol</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Picloram</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Polychlorinated biphenyls [PCBs]</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Simazine</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
<tr>
<td>Toxaphene</td>
<td>2</td>
<td>R 325.10604d(1)</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>R 325.10717</td>
</tr>
</tbody>
</table>

E. Volatile organic chemicals (VOC)
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL/MRDL/TT violations</th>
<th>Monitoring, testing, &amp; reporting procedure violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier of public notice</td>
<td>Citation</td>
</tr>
<tr>
<td></td>
<td>required</td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Carbon tetrachloride</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Chlorobenzene (monochloro-benzene)</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>O-dichlorobenzene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>P-dichlorobenzene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,2-dichloroethane</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,1-dichloroethylene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Cis-1,2-dichloroethylene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Trans-1,2-dichloroethylene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,2-dichloropropane</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Styrene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Tetrachloro-ethylene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Toluene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,2,4-trichlorobenzene</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,1,1-trichloroethane</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>1,1,2-trichloroethane</td>
<td>2</td>
<td>R 325.10604b(1)</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>2 R 325.10604b(1)</td>
<td>3 R 325.10716</td>
</tr>
<tr>
<td>Vinyl chloride</td>
<td>2 R 325.10604b(1)</td>
<td>3 R 325.10716</td>
</tr>
<tr>
<td>Xylenes (total)</td>
<td>2 R 325.10604b(1)</td>
<td>3 R 325.10716</td>
</tr>
<tr>
<td>F. Radioactive contaminants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beta/photon emitters</td>
<td>2 R 325.10603(2)(c)</td>
<td>3 R 325.10605 R 325.10725 R 325.10730</td>
</tr>
<tr>
<td>Alpha emitters (gross alpha)</td>
<td>2 R 325.10603(2)(b)</td>
<td>3 R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729</td>
</tr>
<tr>
<td>Combined radium (226 &amp; 228)</td>
<td>2 R 325.10603(2)(a)</td>
<td>3 R 325.10605 R 325.10725 R 325.10726 R 325.10728 R 325.10729</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>---------------------------</td>
<td>------------------------</td>
<td>------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
<tr>
<td>Uranium (pCi/L)</td>
<td>2</td>
<td>R 325.10603(2)(d)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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). 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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total trihalomethanes (TTHM)</td>
<td>2</td>
<td>R 325.10610(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>R 325.10610b(2)(a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Haloacetic acids (HAA)</td>
<td>2</td>
<td>R 325.10610d, R 325.10719e(1) and (2)(a), and R 325.10719h to R 325.10719n</td>
</tr>
<tr>
<td>Bromate</td>
<td>2</td>
<td>R 325.10719e(1) and (2)(c)</td>
</tr>
<tr>
<td>Chloramine (MRDL)</td>
<td>2</td>
<td>R 325.10719e(1) and (3)</td>
</tr>
<tr>
<td>Chlorine (MRDL)</td>
<td>2</td>
<td>R 325.10719e(1) and (3)</td>
</tr>
<tr>
<td>Chlorite</td>
<td>2</td>
<td>R 325.10719e(1) and (2)(b)</td>
</tr>
<tr>
<td>Chlorine dioxide (MRDL), where any 2 consecutive daily samples at entrance to the distribution system only are above MRDL</td>
<td>2</td>
<td>R 325.10719e(1), (3)(b)(i) and (iii)</td>
</tr>
</tbody>
</table>

* 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.
<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL/MRDL/TT violations&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Monitoring, testing, &amp; reporting procedure violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
<tr>
<td></td>
<td>Citation</td>
<td>Tier of public notice required</td>
</tr>
<tr>
<td>Chlorine dioxide (MRDL), where sample(s) in distribution system the next day are also above MRDL</td>
<td>1 * R 325.10610a R 325.10610b(3)(b)(i)</td>
<td>1 R 325.10719e(1), (3)(b)(ii) and (iii)</td>
</tr>
<tr>
<td></td>
<td>* 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.</td>
<td></td>
</tr>
<tr>
<td>Control of DBP precursors—TOC (TT)</td>
<td>2 R 325.10610b(4) R 325.10610c</td>
<td>3 R 325.10719e(1) and (4)</td>
</tr>
<tr>
<td>Bench marking and disinfection profiling</td>
<td>N/A N/A</td>
<td>3 R 325.10722</td>
</tr>
<tr>
<td>Development of monitoring plan</td>
<td>N/A N/A</td>
<td>3 R 325.10719e(5)</td>
</tr>
<tr>
<td>H. Other treatment techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acrylamide (TT)</td>
<td>2 R 325.10604e</td>
<td>N/A N/A</td>
</tr>
<tr>
<td>Epichlorohydrin (TT)</td>
<td>2 R 325.10604e</td>
<td>N/A N/A</td>
</tr>
</tbody>
</table>
### Contaminant MCL/MRDL/TT violations Monitoring, testing, & reporting procedure violations

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>MCL/MRDL/TT violations</th>
<th>Monitoring, testing, &amp; reporting procedure violations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
</tr>
</tbody>
</table>

#### II. Other monitoring:

<table>
<thead>
<tr>
<th>Unregulated contaminants</th>
<th>N/A</th>
<th>N/A</th>
<th>3</th>
<th>40 CFR §141.40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel</td>
<td>N/A</td>
<td>N/A</td>
<td>3</td>
<td>R 325.10710(4), (5), and (9)</td>
</tr>
</tbody>
</table>

#### III. Public notification for variances and exemptions:

<table>
<thead>
<tr>
<th>Operation under a variance or exemption</th>
<th>3</th>
<th>R 325.10302</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violation of conditions of a variance or exemption</td>
<td>2</td>
<td>R 325.10312</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### IV. Other situations requiring public notification:

<table>
<thead>
<tr>
<th>Fluoride level above 2.0 mg/l</th>
<th>3</th>
<th>R 325.10408a(1)</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exceedance of nitrate MCL for noncommunity supplies, as allowed by the department</td>
<td>1</td>
<td>R 325.10604c(3)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Contaminant</td>
<td>MCL/MRDL/TT violations</td>
<td>Monitoring, testing, &amp; reporting procedure violations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tier of public notice required</td>
<td>Citation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of unregulated contaminant monitoring data</td>
<td>3</td>
<td>R 325.10407</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterborne disease outbreak</td>
<td>1</td>
<td>R 325.10734(4)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Source water sample positive for Fecal Indicator: E.coli, enterococci, or coliphage</td>
<td>1</td>
<td>R 325.10739(6)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Other waterborne emergencies and other situations as determined by the department</td>
<td>1 or 2 or 3 *</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* 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.

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

2Failure 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.

3Supplies 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 supply is unable to make contact with the department in the 24-hour
period, the violation is automatically elevated to tier 1.

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.

Title 40 CFR part 141 Section 40, being 40 CFR §141.40, (2014), which pertains to Unregulated
Contaminant Monitoring, is contained in Title 40 CFR parts 136 to 149 and is available for purchase for
$67.00 from the superintendent of documents at the address in R 325.10116. The material is available
for inspection from the offices of the department at the address in R 325.10116(a) or available on the
Internet at http://www.ecfr.gov/.

R 325.10405 Content of public notice.
Rule 405. (1) If a 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 supply is doing to correct the violation or situation.
(h) When the supply expects to return to compliance or resolve the situation.
(i) The name, business address, and phone number of the supply or designee of the 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 supplies
operating under a variance or exemption:
(a) If a public water 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 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 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 supply to obtain a translated copy of the notice or to request assistance in the appropriate language.
(4) The supply shall include the following standard language in the public notice:
(a) The 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 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 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
<table>
<thead>
<tr>
<th>Contaminant in CCR units</th>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microbiological contaminants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total coliform bacteria until March 31, 2016</td>
<td>MCL: For water supplies analyzing 40 or more samples per month, not more than 5.0% of the monthly samples may be positive for total coliform. For supplies analyzing fewer than 40 samples per month, not more than 1 sample per month may be positive for total coliform.</td>
<td>zero</td>
<td>Naturally present in the environment</td>
<td>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.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total coliform bacteria beginning April 1, 2016. This row applies to Consumer Confidence Reporting.</td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>Naturally present in the environment</td>
<td>Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system.</td>
</tr>
<tr>
<td>Fecal coliform and E. coli until March 31, 2016</td>
<td>zero</td>
<td>No conversion necessary</td>
<td>zero</td>
<td>zero</td>
<td>Human and animal fecal waste</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>E. coli beginning April 1, 2016</td>
<td>MCL: Routine and repeat samples are total coliform-positive and either is E. coli-positive or supply fails to take all required repeat samples following E. coli-positive routine sample or supply fails to analyze total coliform-positive repeat sample for E. coli</td>
<td>zero</td>
<td>Human and animal fecal waste</td>
<td>E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely-compromised immune systems.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coliform Assessment and/or Corrective Action Violations beginning April 1, 2016. This row applies to public notification. For Consumer Confidence Reporting, see R 325.10413(12)(g)(i).</td>
<td>N/A</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>N/A</td>
<td>Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that are found. [THE SUPPLY MUST USE ONE 1 OF THE FOLLOWING APPLICABLE SENTENCES:] We failed to conduct the required assessment. We failed to correct all identified sanitary defects that were found during the assessment(s).</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by MCL in CCR units</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>E. coli Assessment and/or Corrective Action Violations beginning April 1, 2106. This row applies to public notification. For Consumer Confidence Reporting, see R 325.10413(12)(g)(ii).</td>
<td>N/A</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>N/A</td>
<td>E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We violated the standard for E. coli, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct a detailed assessment to identify problems and to correct any problems that are found. [THE SUPPLY MUST USE ONE OF THE FOLLOWING APPLICABLE SENTENCES:] We failed to conduct the required assessment. We failed to correct all identified sanitary defects that were found during the assessment that we conducted.</td>
</tr>
<tr>
<td>Seasonal Supply Treatment Technique Violations of the Total Coliform Rule beginning April 1, 2016.</td>
<td>N/A</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>N/A</td>
<td>When this violation includes the failure to monitor for total coliforms or E. coli prior to serving water to the public, the mandatory language found at R 325.10405(4)(b) shall be used. When this violation includes failure to complete other actions, the appropriate public notice elements found in R 325.10405(1) shall be used.</td>
</tr>
</tbody>
</table>
### Contaminant in CCR units

<table>
<thead>
<tr>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fecal indicator</strong>&lt;br&gt;under groundwater requirements in R 325.10612 et. al:&lt;br&gt;- E.coli&lt;br&gt;- enterococci or&lt;br&gt;- coliphage)</td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>E.coli: zero Others: N/A</td>
<td>Human and animal fecal waste</td>
</tr>
<tr>
<td><strong>Violations of rules for ground water supplies subject to R 325.10612</strong></td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Turbidity (ntu)</strong></td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>N/A</td>
<td>Soil runoff</td>
</tr>
<tr>
<td><strong>Other microbiological contaminants</strong>&lt;br&gt;Giardia lamblia, viruses, heterotrophic plate count (HPC) bacteria, legionella, cryptosporidium</td>
<td>TT*</td>
<td>No conversion necessary</td>
<td>TT*</td>
<td>zero</td>
<td>Naturally present in the environment</td>
</tr>
</tbody>
</table>

* The treatment technique violations that involve turbidity exceedances may use health effects language for turbidity instead.
<table>
<thead>
<tr>
<th>Contaminant in CCR units</th>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antimony (ppb)</td>
<td>0.006</td>
<td>1000</td>
<td>6</td>
<td>6</td>
<td>Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder</td>
<td>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.</td>
</tr>
<tr>
<td>Arsenic (ppb)</td>
<td>0.010</td>
<td>1000</td>
<td>10</td>
<td>0</td>
<td>Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes</td>
<td>Some people who drink water containing 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.</td>
</tr>
<tr>
<td>Asbestos [fibers longer than 10 µm] (mfl)</td>
<td>7 mfl</td>
<td>No conversion necessary</td>
<td>7</td>
<td>7</td>
<td>Decay of asbestos cement water mains; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Barium (ppm)</td>
<td>2</td>
<td>No conversion necessary</td>
<td>2</td>
<td>2</td>
<td>Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits</td>
<td>Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.</td>
</tr>
<tr>
<td>Beryllium (ppb)</td>
<td>0.004</td>
<td>1000</td>
<td>4</td>
<td>4</td>
<td>Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries</td>
<td>Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by MCL in CCR units</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>--------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Cadmium (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>5</td>
<td>Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints</td>
<td>Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.</td>
</tr>
<tr>
<td>Chromium [total] (ppb)</td>
<td>0.1</td>
<td>1000</td>
<td>100</td>
<td>100</td>
<td>Discharge from steel and pulp mills; erosion of natural deposits</td>
<td>Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.</td>
</tr>
<tr>
<td>Cyanide [free] (ppb)</td>
<td>0.2</td>
<td>1000</td>
<td>200</td>
<td>200</td>
<td>Discharge from steel/metal factories; discharge from plastic and fertilizer factories</td>
<td>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.</td>
</tr>
<tr>
<td>Fluoride (ppm)</td>
<td>4.0</td>
<td>No conversion necessary</td>
<td>4.0</td>
<td>4.0</td>
<td>Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>---------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Mercury [inorganic] (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>2</td>
<td>Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland</td>
<td>Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.</td>
</tr>
<tr>
<td>Nitrate [as nitrogen] (ppm)</td>
<td>10</td>
<td>No conversion necessary</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Nitrite [as nitrogen] (ppm)</td>
<td>1</td>
<td>No conversion necessary</td>
<td>1</td>
<td>1</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Total nitrate and nitrite [as nitrogen] (ppm)</td>
<td>10</td>
<td>No conversion necessary</td>
<td>10</td>
<td>10</td>
<td>Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Selenium (ppb)</td>
<td>0.05</td>
<td>1000</td>
<td>50</td>
<td>50</td>
<td>Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Thallium (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>0.5</td>
<td>Leaching from ore-processing sites; discharge from electronics, glass, and drug factories</td>
<td>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.</td>
</tr>
<tr>
<td>Lead and copper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lead (ppb)</td>
<td>AL=0.015 through December 31, 2023; AL= 0.010 mg/l beginning January 1, 2024.</td>
<td>1000</td>
<td>AL=0.015 through December 31, 2023; AL=0.010 mg/l beginning January 1, 2024. (TT)</td>
<td>zero</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Copper (ppm)</td>
<td>AL=1.3</td>
<td>No conversion necessary</td>
<td>AL=1.3 (TT)</td>
<td>1.3</td>
<td>Corrosion of household plumbing systems; erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Synthetic organic contaminants including pesticides and herbicides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,4-D (ppb)</td>
<td>0.07</td>
<td>1000</td>
<td>70</td>
<td>70</td>
<td>Runoff from herbicide used on row crops</td>
<td>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.</td>
</tr>
<tr>
<td>2,4,5-TP [silvex] (ppb)</td>
<td>0.05</td>
<td>1000</td>
<td>50</td>
<td>50</td>
<td>Residue of banned herbicide</td>
<td>Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by MCL in CCR units</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------------------------</td>
<td>-----------------------------------------------</td>
<td>----------------</td>
<td>----------------</td>
<td>--------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>Alachlor (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>zero</td>
<td>Runoff from herbicide used on row crops</td>
<td>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.</td>
</tr>
<tr>
<td>Atrazine (ppb)</td>
<td>0.003</td>
<td>1000</td>
<td>3</td>
<td>3</td>
<td>Runoff from herbicide used on row crops</td>
<td>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.</td>
</tr>
<tr>
<td>Benzo(a)pyrene [PAHs] (ppt)</td>
<td>0.0002</td>
<td>1,000,000</td>
<td>200</td>
<td>zero</td>
<td>Leaching from linings of water storage tanks and distribution lines</td>
<td>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.</td>
</tr>
<tr>
<td>Carbofuran (ppb)</td>
<td>0.04</td>
<td>1000</td>
<td>40</td>
<td>40</td>
<td>Leaching of soil fumigant used on rice and alfalfa</td>
<td>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.</td>
</tr>
<tr>
<td>Chlordane (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>zero</td>
<td>Residue of banned termicide</td>
<td>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.</td>
</tr>
<tr>
<td>Dalapon (ppb)</td>
<td>0.2</td>
<td>1000</td>
<td>200</td>
<td>200</td>
<td>Runoff from herbicide used on rights of way</td>
<td>Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.</td>
</tr>
<tr>
<td>Di(2-ethylhexyl) adipate (ppb)</td>
<td>0.4</td>
<td>1000</td>
<td>400</td>
<td>400</td>
<td>Discharge from chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------</td>
<td>-------------------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Di(2-ethylhexyl)phthalate (ppb)</td>
<td>0.006</td>
<td>1000</td>
<td>6</td>
<td>zero</td>
<td>Discharge from rubber and chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Dibromochloropropane [DBCP] (ppt)</td>
<td>0.0002</td>
<td>1,000,000</td>
<td>200</td>
<td>zero</td>
<td>Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards</td>
<td>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.</td>
</tr>
<tr>
<td>Dinoseb (ppb)</td>
<td>0.007</td>
<td>1000</td>
<td>7</td>
<td>7</td>
<td>Runoff from herbicide used on soybeans and vegetables</td>
<td>Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.</td>
</tr>
<tr>
<td>Dioxin [2,3,7,8-TCDD] (ppq)</td>
<td>0.00000003</td>
<td>1,000,000,000</td>
<td>30</td>
<td>zero</td>
<td>Emissions from waste incineration and other combustion; discharge from chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Diquat (ppb)</td>
<td>0.02</td>
<td>1000</td>
<td>20</td>
<td>20</td>
<td>Runoff from herbicide use</td>
<td>Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.</td>
</tr>
<tr>
<td>Endothall (ppb)</td>
<td>0.1</td>
<td>1000</td>
<td>100</td>
<td>100</td>
<td>Runoff from herbicide use</td>
<td>Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.</td>
</tr>
<tr>
<td>Endrin (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>2</td>
<td>Residue of banned insecticide</td>
<td>Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>--------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Ethylene dibromide (ppt)</td>
<td>0.00005</td>
<td>1,000,000</td>
<td>50</td>
<td>zero</td>
<td>Discharge from petroleum refineries</td>
<td>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.</td>
</tr>
<tr>
<td>Glyphosate (ppb)</td>
<td>0.7</td>
<td>1000</td>
<td>700</td>
<td>700</td>
<td>Runoff from herbicide use</td>
<td>Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.</td>
</tr>
<tr>
<td>Heptachlor (ppt)</td>
<td>0.0004</td>
<td>1,000,000</td>
<td>400</td>
<td>zero</td>
<td>Residue of banned pesticide</td>
<td>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.</td>
</tr>
<tr>
<td>Heptachlor epoxide (ppt)</td>
<td>0.0002</td>
<td>1,000,000</td>
<td>200</td>
<td>zero</td>
<td>Breakdown of heptachlor</td>
<td>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.</td>
</tr>
<tr>
<td>Hexachlorobenzene (ppb)</td>
<td>0.001</td>
<td>1000</td>
<td>1</td>
<td>zero</td>
<td>Discharge from metal refineries and agricultural chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Hexachlorocyclopentadiene (ppb)</td>
<td>0.05</td>
<td>1000</td>
<td>50</td>
<td>50</td>
<td>Discharge from chemical factories</td>
<td>Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.</td>
</tr>
<tr>
<td>lindane (ppt)</td>
<td>0.0002</td>
<td>1,000,000</td>
<td>200</td>
<td>200</td>
<td>Runoff/leaching from insecticide used on cattle, lumber, gardens</td>
<td>Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------</td>
<td>------------------</td>
<td>--------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Methoxychlor (ppb)</td>
<td>0.04</td>
<td>1000</td>
<td>40</td>
<td>40</td>
<td>Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock</td>
<td>Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.</td>
</tr>
<tr>
<td>Oxamyl [vydate] (ppb)</td>
<td>0.2</td>
<td>1000</td>
<td>200</td>
<td>200</td>
<td>Runoff/leaching from insecticide used on apples, potatoes, and tomatoes</td>
<td>Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.</td>
</tr>
<tr>
<td>Pentachlorophenol (ppb)</td>
<td>0.001</td>
<td>1000</td>
<td>1</td>
<td>zero</td>
<td>Discharge from wood preserving factories</td>
<td>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.</td>
</tr>
<tr>
<td>Picloram (ppb)</td>
<td>0.5</td>
<td>1000</td>
<td>500</td>
<td>500</td>
<td>Herbicide runoff</td>
<td>Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.</td>
</tr>
<tr>
<td>Polychlorinated biphenyls [PCBs] (ppt)</td>
<td>0.0005</td>
<td>1,000,000</td>
<td>500</td>
<td>zero</td>
<td>Runoff from landfills; discharge of waste chemicals</td>
<td>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.</td>
</tr>
<tr>
<td>Simazine (ppb)</td>
<td>0.004</td>
<td>1000</td>
<td>4</td>
<td>4</td>
<td>Herbicide runoff</td>
<td>Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------------------------------</td>
<td>--------------------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Toxaphene (ppb)</td>
<td>0.003</td>
<td>1000</td>
<td>3</td>
<td>zero</td>
<td>Runoff/leaching from insecticide used on cotton and cattle</td>
<td>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.</td>
</tr>
<tr>
<td>Volatile organic contaminants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from factories; leaching from gas storage tanks and landfills</td>
<td>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.</td>
</tr>
<tr>
<td>Carbon tetrachloride (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from chemical plants and other industrial activities</td>
<td>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.</td>
</tr>
<tr>
<td>Chlorobenzene (ppb)</td>
<td>0.1</td>
<td>1000</td>
<td>100</td>
<td>100</td>
<td>Discharge from chemical and agricultural chemical factories</td>
<td>Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.</td>
</tr>
<tr>
<td>O-dichlorobenzene (ppb)</td>
<td>0.6</td>
<td>1000</td>
<td>600</td>
<td>600</td>
<td>Discharge from industrial chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>P-dichlorobenzene (ppb)</td>
<td>0.075</td>
<td>1000</td>
<td>75</td>
<td>75</td>
<td>Discharge from industrial chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>1,2-dichloroethane (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from industrial chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>1,1-dichloroethylene (ppb)</td>
<td>0.007</td>
<td>1000</td>
<td>7</td>
<td>7</td>
<td>Discharge from industrial chemical factories</td>
<td>Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.</td>
</tr>
<tr>
<td>Cis-1,2-dichloroethylene (ppb)</td>
<td>0.07</td>
<td>1000</td>
<td>70</td>
<td>70</td>
<td>Discharge from industrial chemical factories</td>
<td>Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.</td>
</tr>
<tr>
<td>Trans-1,2-dichloroethylene (ppb)</td>
<td>0.1</td>
<td>1000</td>
<td>100</td>
<td>100</td>
<td>Discharge from industrial chemical factories</td>
<td>Some people who drink water containing trans-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.</td>
</tr>
<tr>
<td>Dichloromethane (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from pharmaceutical and chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>1,2-dichloropropane (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from industrial chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Ethylbenzene (ppb)</td>
<td>0.7</td>
<td>1000</td>
<td>700</td>
<td>700</td>
<td>Discharge from petroleum refineries</td>
<td>Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.</td>
</tr>
<tr>
<td>Styrene (ppb)</td>
<td>0.1</td>
<td>1000</td>
<td>100</td>
<td>100</td>
<td>Discharge from rubber and plastic factories; leaching from landfills</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td>-------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Tetrachloroethylene (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>Zero</td>
<td>Discharge from factories and dry cleaners</td>
<td>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.</td>
</tr>
<tr>
<td>Toluene (ppm)</td>
<td>1</td>
<td>No conversion necessary</td>
<td>1</td>
<td>1</td>
<td>Discharge from petroleum factories</td>
<td>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.</td>
</tr>
<tr>
<td>1,2,4-trichlorobenzene (ppb)</td>
<td>0.07</td>
<td>1000</td>
<td>70</td>
<td>70</td>
<td>Discharge from textile-finishing factories</td>
<td>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.</td>
</tr>
<tr>
<td>1,1,1-trichloroethane (ppb)</td>
<td>0.2</td>
<td>1000</td>
<td>200</td>
<td>200</td>
<td>Discharge from metal degreasing sites and other factories</td>
<td>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.</td>
</tr>
<tr>
<td>1,1,2-trichloroethane (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>3</td>
<td>Discharge from industrial chemical factories</td>
<td>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.</td>
</tr>
<tr>
<td>Trichloroethylene (ppb)</td>
<td>0.005</td>
<td>1000</td>
<td>5</td>
<td>zero</td>
<td>Discharge from metal degreasing sites and other factories</td>
<td>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.</td>
</tr>
<tr>
<td>Vinyl chloride (ppb)</td>
<td>0.002</td>
<td>1000</td>
<td>2</td>
<td>zero</td>
<td>Leaching from PVC piping; discharge from plastics factories</td>
<td>Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.</td>
</tr>
</tbody>
</table>
### Contaminants in CCR units

<table>
<thead>
<tr>
<th>Contaminant in CCR units</th>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by MCL in CCR units</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylenes [total] (ppm)</td>
<td>10</td>
<td>No conversion necessary</td>
<td>10</td>
<td>10</td>
<td>Discharge from petroleum factories; discharge from chemical factories</td>
<td>Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.</td>
</tr>
<tr>
<td>Radioactive contaminants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beta/photon emitters (mrem/yr)</td>
<td>4 mrem/yr</td>
<td>No conversion necessary</td>
<td>4</td>
<td>zero</td>
<td>Decay of natural and man-made deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Alpha emitters [gross alpha] (pci/l)</td>
<td>15 pCi/L</td>
<td>No conversion necessary</td>
<td>15</td>
<td>zero</td>
<td>Erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Combined radium [226 &amp; 228] (pci/l)</td>
<td>5 pCi/L</td>
<td>No conversion necessary</td>
<td>5</td>
<td>zero</td>
<td>Erosion of natural deposits</td>
<td>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.</td>
</tr>
<tr>
<td>Uranium (pCi/L)</td>
<td>30 ug/L</td>
<td>No conversion necessary</td>
<td>30</td>
<td>Zero</td>
<td>Erosion of natural deposits</td>
<td>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.</td>
</tr>
</tbody>
</table>

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 to R 325.10610d and R 325.10719e to R 325.10719n for disinfection byproduct MCLs, disinfectant MRDLs, and related monitoring requirements.
<table>
<thead>
<tr>
<th>Contaminant in CCR units</th>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total trihalomethanes [TTHM] (ppb)</td>
<td>0.080*</td>
<td>1000</td>
<td>80*</td>
<td>N/A</td>
<td>By-product of drinking water disinfection</td>
<td>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.</td>
</tr>
<tr>
<td>* The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloacetic acids (HAAs) (ppb)</td>
<td>0.060*</td>
<td>1000</td>
<td>60*</td>
<td>N/A</td>
<td>By-product of drinking water disinfection</td>
<td>Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.</td>
</tr>
<tr>
<td>* The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bromate (ppb)</td>
<td>0.010</td>
<td>1000</td>
<td>10</td>
<td>zero</td>
<td>By-product of drinking water disinfection</td>
<td>Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.</td>
</tr>
<tr>
<td>Chloramines (ppm)</td>
<td>MRDL = 4</td>
<td>No conversion necessary</td>
<td>MRDL = 4</td>
<td>MRDL G = 4</td>
<td>Water additive used to control microbes</td>
<td>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.</td>
</tr>
<tr>
<td>Chlorine (ppm)</td>
<td>MRDL = 4</td>
<td>No conversion necessary</td>
<td>MRDL = 4</td>
<td>MRDL G = 4</td>
<td>Water additive used to control microbes</td>
<td>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.</td>
</tr>
<tr>
<td>Chlorite (ppm)</td>
<td>1</td>
<td>No conversion necessary</td>
<td>1</td>
<td>0.8</td>
<td>By-product of drinking water disinfection</td>
<td>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.</td>
</tr>
<tr>
<td>Contaminant in CCR units</td>
<td>Traditional MCL in mg/l, except where noted</td>
<td>To convert for CCR, multiply by</td>
<td>MCL in CCR units</td>
<td>MCLG in CCR units</td>
<td>Major sources in drinking water</td>
<td>Health effects language</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>-------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Chlorine dioxide (ppb)</td>
<td>MRDL = 0.8</td>
<td>1000</td>
<td>MRDL = 800</td>
<td>MCLG = 800</td>
<td>Water additive used to control microbes</td>
<td>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.</td>
</tr>
<tr>
<td>Total organic carbon [TOC - control of DBP precursors] (ppm)</td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>None</td>
<td>Naturally present in the environment</td>
<td>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.</td>
</tr>
</tbody>
</table>

Other treatment techniques
<table>
<thead>
<tr>
<th>Contaminant in CCR units</th>
<th>Traditional MCL in mg/l, except where noted</th>
<th>To convert for CCR, multiply by</th>
<th>MCL in CCR units</th>
<th>MCLG in CCR units</th>
<th>Major sources in drinking water</th>
<th>Health effects language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide</td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>zero</td>
<td>Added to water during sewage/wastewater treatment</td>
<td>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.</td>
</tr>
<tr>
<td>Epichlorohydrin</td>
<td>TT</td>
<td>No conversion necessary</td>
<td>TT</td>
<td>zero</td>
<td>Discharge from industrial chemical factories; an impurity of some water treatment chemicals</td>
<td>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.</td>
</tr>
</tbody>
</table>
R 325.10410 Public education regarding lead.

Rule 410. (1) Each community and noncommunity water supply that monitors for lead and copper under R 325.10710a shall deliver a consumer notice of lead and copper 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. A water supply that exceeds the lead action level based on tap water samples that are collected under R 325.10710a shall issue public advisory as required by sec. 19(2) of the act and shall deliver the public education materials 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 water supply is not required to pay for collecting or analyzing the sample and is not required to collect and analyze the sample.

(2) 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.
(D) Explain the unpredictability of lead release, the limits of 1-time tests, and the high lead content of some lead particulates.

(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, including the availability of filters certified to remove lead and the importance of proper filter maintenance.

(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 website 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 do all of the following:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

(iii) Tell consumers about the availability of lead-free plumbing fixtures.

(3) All of the following provisions apply to delivery of public education materials:

(a) 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) 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 either within 60 days of notification by the department of a lead action level exceedance or within 60 days after the end of the monitoring period in which the exceedance occurred, whichever is sooner. 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.
(7) Community centers.
(8) Adult foster care facilities.

(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 website 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) As long as a community water supply exceeds the action level, it shall repeat the activities under subdivision (b)(i) to and (ii) 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 and (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 website 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) Within either 60 days of notification by the department of a lead action level exceedance or within 60 days after the end of the monitoring period in which the exceedance occurred, whichever is sooner, 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 may 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 and (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) 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) All of the following provisions apply to notification of results:

(a) Each supply shall provide a notice of the individual tap results from lead and copper 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) For lead results less than or equal to the household advisory level for lead, 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 follows:

(i) 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.

(ii) The consumer notice shall include the results of lead and copper tap water monitoring for the tap that was tested, an explanation of the health effects of lead and copper, list steps consumers can take to reduce exposure to lead and copper in drinking water and contact information for the water utility. The notice shall also provide the maximum contaminant level goals and the action levels for lead and copper and the definitions for these 2 terms from R 325.10413(4) and (6).

(c) For lead results greater than the household advisory level for lead, a supply shall provide the consumer notice as follows:

(i) A supply shall provide the consumer notice as soon as practical, but not later than 3 business days after the supply learns of the tap monitoring results. Mailed notices postmarked within 3 business days of receiving the results are satisfactory.

(ii) A supply shall provide notice of the results to the department and the local health department within 3 business days after the supply learns of the tap monitoring results. The department shall refer the results to the department of health and human services for escalated response.

(iii) In addition to all information specified in R 325.10410(5)(b)(ii), the notice must include a statement on how the consumer can request blood lead level testing and a household plumbing assessment to diagnose the potential sources of lead in drinking water.
(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 director shall appoint a statewide drinking water advisory council to assist the department in developing lead public awareness campaign materials and advise the department on efforts to educate the public about lead in drinking water.

(a) The membership of the statewide council shall consist of 1 community water supply representative, 1 noncommunity water supply representative, 1 representative of the administrative branch of a local government agency, 1 medical professional, 1 professor of public health at a university in the state, 1 representative of an environmental or public health advocacy group, 1 public health educator, and 2 members of the public at large. To be eligible for appointment to the state council, an individual shall have a demonstrated interest in or knowledge of lead in drinking water and its effects, as well as a demonstrated record of, or commitment to, working to protect the public from lead in water.

(b) The members first appointed to the statewide council shall be appointed within 90 days after the effective date of this rule.

(c) Members of the statewide council shall serve for terms of 3 years or until a successor is appointed, whichever is later, except certain of the members first appointed may be appointed for shorter terms to achieve a staggering of terms.

(d) If a vacancy occurs on the statewide council, an appointment for the unexpired term shall be made in the same manner as the original appointment.

(e) A member of the statewide council may be removed for incompetence, dereliction of duty, malfeasance, misfeasance, or nonfeasance in office, or any other good cause.

(f) At the first meeting of the statewide council, the council shall elect from its members a chairperson and other officers as it considers necessary or appropriate. After the first meeting, the council shall meet at least quarterly.

(g) A majority of the members of the statewide council constitute a quorum for the transaction business at a meeting of the council. A majority of the members present and serving are required for official action of the council.

(h) The business that the statewide council may perform shall be conducted at a public meeting of the council held in compliance with the open meetings act, 1976 PA 267, MCL 15.261 to 15.275.

(i) A writing prepared, owned, used, in the possession of, or retained by the statewide council in the performance of an official function is subject to the freedom of information act, 1976 PA 442, MCL 15.231 to 15.246.

(j) The statewide council shall do the following:

(i) Develop plans for continuing public awareness about lead in drinking water.

(ii) In consultation with the department and the department of health and human services, generate public awareness campaign materials about lead to be distributed by water supplies.

(iii) Assist in promoting the transparency of data and documents related to lead in drinking water within the state.

(v) Advise and consult with community councils on the development of appropriate plans for remediation and public education to be implemented if the lead action level is exceeded.

(vi) Provide advice, direction, and assistance on lead or other drinking quality issues as needed to individual community supplies and their councils.
(7) Each publicly owned supply that serves a population of 50,000 or more, and each consecutive water system that serves a population of 50,000 or more, shall create a water system advisory council. Councils shall operate as follows:

(a) A council shall consist of at least 5 members, appointed by the community supply. To be eligible for appointment to the council, an individual shall have a demonstrated interest in or knowledge about lead in drinking water and its effects, as well as a demonstrated record of, or commitment to, working to protect the public from lead in water.

(b) The members first appointed to a council shall be appointed within 180 days after the effective date of this rule.

(c) The business that the council may perform shall be conducted at a public meeting of the council and held in compliance with the open meetings act, 1976 PA 267, MCL 15.261 to 15.275.

(d) The first meeting of a council shall be called by the community supply. At the first meeting, the council shall elect from its members a chairperson and other officers as it considers necessary or appropriate. After the first meeting, the council shall meet at least annually.

(e) A writing prepared, owned, used, in the possession of, or retained by the council in the performance of an official function is subject to the freedom of information act, 1976 PA 442, MCL 15.231 to 15.246.

(f) The council shall do the following:

(i) Develop plans for continuing public awareness about lead in drinking water, even when the action level is not exceeded.

(ii) Review public awareness campaign materials provided by the statewide drinking water advisory council to ensure the needs and interests of the community, considering the economic and cultural diversity of its residents, are addressed.

(iii) Advise and consult with the community supply on the development of appropriate plans for remediation and public education to be implemented if a lead action level is exceeded.

(iv) Advise and consult with the community supply on efforts to replace private lead service lines at locations where the owner declined service line replacement.

(v) Assist in promoting transparency of all data and documents related to lead in drinking water within the community supply service area.

(vi) Collaborate with local community groups to ensure that residents have the opportunity to be involved in efforts to educate the community about lead in drinking water.

(g) A water system advisory council may independently seek advice, direction, and assistance from the department or the statewide advisory council.

R 325.10413  Annual consumer confidence reporting; content of reports.

Rule 413.  (1) Each community water 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 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 supply has received a source water assessment from the department, then the report shall include a brief summary of the 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 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) A report that contains information regarding a level 1 or level 2 assessment required under total coliform provisions of R 325.10704a to R 325.10704k shall include the following applicable definitions:
   (a) Level 1 assessment: A level 1 assessment is a study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
   (b) Level 2 assessment: A level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

(8) 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 40 CFR §141.40, as referenced in R 325.10401a, known as unregulated contaminants.
      (iii) Disinfection byproducts or microbial contaminants for which monitoring is required by 40 C.F.R. §§141.142 and 141.143, except as provided under subrule (9)(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 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, total coliform, fecal coliform, and E. coli, 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. 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 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 analytical results until March 31, 2016, 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 and E. coli until March 31, 2016, 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 supply's knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments and the supply shall use the information when it is available. If the 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 supply.
(x) For E. coli analytical results under the total coliform provisions of R 325.10704a to R 325.10704k,
the table shall indicate the total number of positive samples.
(e) If a community water 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, supplies 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 supply to address the violation. The 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.
(9) All of the following information shall be included on Cryptosporidium, radon, and other
contaminants:
(a) If the 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 supply has performed additional monitoring which indicates the presence of other
contaminants in the finished water, then the supply is encouraged to report any results that may indicate
a health concern. To determine if results may indicate a health concern, the 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 during the year covered by the report.
(10) 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,
supplies 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, supplies that fail to take 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, supplies 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.

(11) For variances and exemptions, if a 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.

(12) 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 paragraphs (i) to (iii) of this subdivision or supplies 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 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 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 supplies that may affect the quality of the water; for example, time and place of regularly scheduled board meetings.

(e) The 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.

(g) Supplies required to comply with total coliform provisions of R 325.10704a to R 325.10704k shall comply with all of the following:

(i) A supply required to comply with the level 1 assessment requirement or a level 2 assessment requirement that is not due to an E. coli MCL violation shall comply with all of the following:

(A) Include in the report the text, "Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or
distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments.

(B) Include in the report as appropriate, filling in the blanks accordingly the text, "During the past year we were required to conduct [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] level 1 assessment(s). [INSERT NUMBER OF LEVEL 1 ASSESSMENTS] level 1 assessment(s) were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions."

(C) Include in the report as appropriate, filling in the blanks accordingly the text, "During the past year [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] level 2 assessments were required to be completed for our water supply. [INSERT NUMBER OF LEVEL 2 ASSESSMENTS] Level 2 assessments were completed. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions."

(D) A supply that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement and shall also include 1 or both of the following statements, as appropriate:

1. During the past year we failed to conduct all of the required assessment(s).
2. During the past year we failed to correct all identified defects that were found during the assessment.

(ii) A supply required to undergo a level 2 assessment due to an E. coli MCL violation shall comply with all of the following:

A. Include in the report the text, "E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found E. coli bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct the problems that were found during these assessments."

(B) Include in the report as appropriate, filling in the blanks accordingly the text, "We were required to complete a level 2 assessment because we found E. coli in our water system. In addition, we were required to take [INSERT NUMBER OF CORRECTIVE ACTIONS] corrective actions and we completed [INSERT NUMBER OF CORRECTIVE ACTIONS] of these actions."

(C) A supply that has failed to complete the required assessment or correct all identified sanitary defects, is in violation of the treatment technique requirement and shall also include one or both of the following statements, as applicable:

1. We had an E. coli-positive repeat sample following a total coliform-positive routine sample.
2. We had a total coliform-positive repeat sample following an E. coli-positive routine sample.
3. We failed to take all required repeat samples following an E. coli-positive routine sample.
4. We failed to test for E. coli when a repeat sample tests positive for total coliform.
(iv) If a supply detects E. coli and has not violated the E. coli MCL, in addition to completing the table as required in subrule (8)(d) of this rule, the supply may include a statement that explains that although they have detected E. coli, they are not in violation of the E. coli MCL.

(h) For water supplies with lead service lines, or service lines of unknown material, the report shall include the number of lead service lines, the number of service lines of unknown material, and the total number of service lines in the supply.

R 325.10420 Annual consumer confidence reporting; contaminants for vulnerable subpopulation.

Rule 420. Pursuant to section 14 of the act, if any contaminants listed in table 1 of this rule are detected above a level of concern as indicated in table 1 of this rule, then the consumer confidence report shall include a description of the potential adverse health effects and the vulnerable subpopulation that may be susceptible to the level of contaminant detected. The community water supply may use the relevant language provided in table 1 of R 325.10405.

Table 1 Contaminants for vulnerable subpopulation reporting

<table>
<thead>
<tr>
<th>Contaminant</th>
<th>Susceptible vulnerable subpopulation</th>
<th>Level of concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal coliform/</td>
<td>Infants, young children, the elderly, and people with severely compromised immune systems.</td>
<td>Confirmed presence (any confirmed detect)</td>
</tr>
<tr>
<td>E. coli</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td>People with Wilson’s disease.</td>
<td>1.3 mg/l (ppm)</td>
</tr>
<tr>
<td>Fluoride</td>
<td>Children.</td>
<td>4.0 mg/l (ppm)</td>
</tr>
<tr>
<td>Lead</td>
<td>Infants and children.</td>
<td>15.0 µg/l (ppb) until December 31, 2023; 10.0 µg/l (ppb) beginning January 1, 2024.</td>
</tr>
<tr>
<td>Nitrate</td>
<td>Infants below the age of 6 months.</td>
<td>10.0 mg/l (ppm)</td>
</tr>
<tr>
<td>Nitrite</td>
<td>Infants below the age of 6 months.</td>
<td>1.0 mg/l (ppm)</td>
</tr>
</tbody>
</table>

PART 6. STATE DRINKING WATER STANDARDS AND ANALYTICAL METHODS

R 325.10604f Treatment techniques for lead and copper; household advisory level for lead.

Rule 604f. (1) Treatment techniques for lead and copper and the household advisory level for lead are as follows:

(a) 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 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) **Through December 31, 2023,** 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. **Beginning January 1, 2024,** the lead action level is exceeded if the ninetieth percentile lead level is more than 0.010 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 **highest lead results or the highest copper result from each sampling site 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.

(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 supply shall install and operate optimal corrosion control treatment on the system under subrules (2) and (3) of this rule. A 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) A supply exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the department under subrule (4) of this rule.

(f) A supply exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in subrule (5) of this rule. **All other supplies shall complete the lead service line replacement requirements contained in subrule (6) of this rule.**

(g) Under R 325.10410, all water supplies shall provide a consumer notice of lead and copper tap water monitoring results to persons served at the sites (taps) that are tested. A supply exceeding the lead action level 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 under R 325.10605, R 325.10710a, R 325.10710b, and R 325.10710c.

(i) A supply shall report, to the department, the information required by the treatment provisions of this subrule and R 325.10710d.

(j) A 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 these rules for lead or copper, as applicable.
(l) The household advisory level for lead is exceeded if the lead level at an individual sampling location is more than 0.040 milligrams per liter (mg/l), when collected pursuant to a sampling protocol designed to represent water typically drawn for consumption.

(m) When notified of a new source or long-term change in treatment as required under R 325.10710d(a)(iii), the department may require the supply to conduct a new or updated corrosion control study as described in 604f(3)(c), additional monitoring, or other action the department considers appropriate to ensure the supply maintains optimal corrosion control.

(2) Corrosion control treatment steps apply to small, medium size, and large water supplies as follows:

(a) A supply shall complete the applicable corrosion control treatment requirements described in subrule (3) of this rule by the deadlines established in this rule. A large water supply (serving more than 50,000 persons) shall complete the corrosion control treatment steps specified in subdivision (d) of this subrule, unless the supply is considered to have optimized corrosion control under subdivision (b) (ii) or (iii) of this subrule. A small water system (serving 3,300 or fewer persons) 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 supply is considered to have optimized corrosion control under subdivision (b)(ii) of this subrule.

(b) A 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 supply is in compliance with 1 of the criteria specified in paragraphs (i) to (iii) of this subdivision. A supply which is considered to have optimized corrosion control under this subdivision and which has treatment in place, or is receiving water from a supply considered optimized under this subdivision, 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 small or medium size water supply is considered to have optimized corrosion control if the 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 water supply may be considered by the department to have optimized corrosion control treatment if the 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. 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)(g) 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 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 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 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.
A water supply is considered to have optimized corrosion control 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 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 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 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 water supply considered to have optimized corrosion control under this subdivision 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 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 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 supply maintains minimal levels of corrosion in the distribution system.

(D) As of July 12, 2001, a supply is not considered to have optimized corrosion control under this subdivision, and shall implement corrosion control treatment under subparagraph (E) of this paragraph unless it meets the copper action level.

(E) A 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. A large water supply shall adhere to the schedule specified in that subdivision for medium size water supplies, with the time periods for completing each step being triggered by the date the supply is no longer considered to have optimized corrosion control under this subdivision.

(c) If a small or medium size water supply exceeds the lead or copper action level and the supply is required to perform the corrosion control treatment steps, the supply may cease completing the treatment steps when the supply is in compliance with both action levels during each of 2 consecutive monitoring periods conducted under R 325.10710a and the supply submits the results to the department. If the supply thereafter exceeds the lead or copper action level during a monitoring period, the 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 supply to repeat treatment steps that were previously completed by the 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 supply exceeds the lead or copper action level, the supply, including 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 (b)(ii) and (iii) of this subrule, a large water supply shall complete all of the following corrosion control treatment steps by the indicated dates:

(i) Step 1: A supply shall conduct initial monitoring during 2 consecutive 6-month monitoring periods by January 1, 1993.

(ii) Step 2: A supply shall complete corrosion control studies by July 1, 1994.
(iii) Step 3: By January 1, 1997, a supply shall install optimal corrosion control treatment as designated by the department.

(iv) Step 4: A supply shall complete follow-up sampling by January 1, 1998.

(v) Step 5: A 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, small and medium size water supplies shall complete all of the following corrosion control treatment steps by the indicated time periods:

(i) Step 1: A supply shall conduct initial tap sampling under R 325.10604f(3)(a) until the supply either exceeds the lead or copper action level or becomes eligible for reduced monitoring. The 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 exceeds 1 of the action levels.

(ii) Step 2: Within 12 months after the end of the monitoring period during which a supply exceeds the lead or copper action level, the department may require the 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 supply to perform corrosion control studies under subdivision (3)(b) of this rule, the 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 supply shall install optimal corrosion control treatment within 24 months after the department designates the treatment.

(v) Step 5: A 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 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 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, 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 supply believes constitutes optimal corrosion control for that system. The department may require the supply to conduct additional water quality parameter monitoring under R 325.10710b(4) to assist the department in reviewing the supply's recommendation.

(b) When required by the department, a small or medium size water 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 supply.

(c) Perform corrosion control studies as follows:
(i) A 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 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 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 water supplies of similar size, water chemistry, and distribution system configuration.

(iii) A 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.
(J) Sulfate.
(K) Chloride.

(iv) The 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 water supply with comparable water quality characteristics.
(B) Data and documentation demonstrating that the 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 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 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 supply. The 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 supply's recommended treatment alternative, the department will either approve the corrosion control treatment option recommended by the 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 water supply shall provide the information.

(e) Each 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, and at taps in 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, and at taps in 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, and at taps in 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.

(g) All 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) to (8). Compliance with the requirements of this subdivision shall be determined every 6 months, as specified under R 325.10710b(6). A 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.

(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 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 supply continues to optimize corrosion control treatment.
A 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: 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 not later than 180 days after the end of the monitoring period during which 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 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 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 supply shall operate 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) 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 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 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 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) 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. 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 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 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 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 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) For a water supply that exceeds the lead action level after installing corrosion control or source water treatment, lead service line replacement requirements are as follows:

(a) A water supply that exceeds the lead action level in tap samples taken 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 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 supply to commence lead service line replacement after the date that the supply was required to conduct monitoring under R 325.10710a(4)(b).

(b) Both of:

(i) Annually, a 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 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), or the materials inventory required under R 325.11604(c), 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 first day following the end of the monitoring period in which the action level was exceeded 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 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)(e), is less than or equal to 0.015 mg/l.
(d)—(e) A water supply shall replace that portion of the lead service line that it owns. If the supply does not own the entire lead service line, the supply shall notify the owner of the line, or the owner's authorized agent, that the supply will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line at water supply expense. If the building owner does not consent, the supply may replace the portion of the service line that it owns. A 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 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 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 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 water supply shall inform the resident or residents served by the line that the supply will, at the 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 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 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 supply shall have the option to post the information at a conspicuous location.

(e)—(d) 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)—(e) A supply may cease replacing lead service lines under this subrule 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 supply submits the results to the department. If the first draw samples exceed the lead action level, the supply shall recommence replacing lead service lines under subdivision (b)(ii)(i) of this subrule.

(g)—(f) To demonstrate compliance with subdivisions (a) to (d)(e) of this subrule, a supply shall report the information specified in R 325.10710d(e) to the department.

(g) Coating and lining techniques shall not be used to meet the service line replacement requirements under this subrule.

(6) Unless subject to service line replacement requirements under subrule (5) of this rule, water supply service line replacement requirements are as follows:

(a) For a water supply with a lead ninetieth percentile greater than 0.005 mg/l, lead service line replacement requirements are as follows:
(i) Annually, a water supply shall replace not less than 5% 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 supply shall identify the initial number of lead service lines in its distribution system, based on a materials evaluation, including the evaluation required under R 325.10710a(1), or the materials inventory required under R 325.11604(c). The first year of lead service line replacement begins on the first day following the end of the monitoring period in which the lead action level was greater than 0.005 mg/L. 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) When replacing lead service lines, a water supply shall also replace any galvanized service line connected to the lead service line.

(iii) Within 12 months of the end of the monitoring period, the supply shall submit a written report to the department that demonstrates the supply has complied with the requirements of this subdivision. The report shall include the number of lead service lines scheduled to be replaced and the number and location of each lead service line replaced.

(iv) A supply may cease replacing lead service lines under this subdivision and resume service line replacement under subdivision (b) of this subrule when the lead ninetieth percentile for samples collected under R 325.10710a(2) are at or below 0.005 mg/L during each of 2 consecutive monitoring periods and the supply submits the results to the department. If the supply thereafter has a lead ninetieth percentile greater than 0.005 mg/l, the supply shall recommence replacing lead service lines under subdivision (a) of this subrule.

(b) Unless subject to subrule (5) of this rule or subdivision (a) of this subrule, a water supply shall replace all lead service lines, and galvanized service lines if the service line is or was connected to lead piping. Within 12 months of the due date of the preliminary distribution system materials inventory, a water supply with lead service lines shall submit to the department a plan to replace all lead service lines. If the supply is subject to asset management requirements under R 325.11606, the lead service line replacement plan shall be incorporated into the supply’s asset management plan, including criteria prioritizing the criticality of lead service line replacement.

(c) If a supply controls the entire service line, the supply shall replace the entire service line at the water supply’s expense.

(d) A supply is presumed to control the entire service line unless the supply demonstrates in writing that it does not have any of the following forms of control over the entire service line, as provided by state statute, local ordinance, public service contract, or other applicable legal authority:

(i) Authority to set standards for construction, repair, or maintenance of the service line.

(ii) Authority to replace, repair, or maintain the service line.

(iii) Ownership of the service line.

(e) If a supply controls less than the entire service line, the supply shall offer to the building owner to replace the entire service line, including the portion of the service line under the building owner’s control, at the supply’s expense. If the building owner consents, the supply shall replace the entire service line at the supply’s expense. If the building owner does not consent, the supply may replace the portion of the service line that it controls as follows:

(i) Not less than 45 days before commencing the partial lead service line replacement, the water supply shall provide notice to the owner and 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.

(ii) The water supply may provide notice less than 45 days before commencing partial lead service line replacement where the replacement is in conjunction with emergency repairs.

(iii) The water supply shall inform the resident or residents served by the line that the supply will, at the supply’s expense, collect a sample from each partially replaced lead 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 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.

(iv) Any remaining lead service line, including the privately owned portion, must be documented in the water supply’s distribution system materials inventory required under R 325.11604(c).

(f) Service lines that are physically disconnected from the distribution system are exempt from this subrule.

(g) Coating and lining techniques shall not be used to meet the service line replacement requirements under this subrule.

PART 7. SURVEILLANCE, INSPECTION, AND MONITORING

R 325.10710a 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 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 water supply can collect the number of lead and copper tap samples required under subrule (3) of this rule. The water supply shall also use the results of its distribution system materials inventory required under R 325.11604(c) to update the sampling pool as necessary. All sites from which first draw samples are collected shall be selected from the pool of targeted sampling sites. Sampling sites may not include faucets that have point of use or point of entry treatment devices designed to remove inorganic contaminants. By January 1, 2020, and in a form and manner specified by the department, a supply shall submit to the department a lead and copper tap sampling pool as follows:

(i) The sampling pool shall, at a minimum, identify sufficient sites to ensure the water supply can collect the number of tap samples required for standard monitoring under subrule (3) of this rule.

(ii) The sampling pool shall identify the location of the sites and describe how each site meets selection criteria in this subrule.

(iii) A water supply may update its sampling pool as frequently as necessary. A supply shall submit updates to the department. Updates shall identify any site removed from the sampling pool and why the site was removed. The sampling pool shall identify the location of any site added to the pool and describe how the site meets selection criteria.

(b) A 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), (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 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) are adopted by reference in R 325.10112. In addition, the 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 supply's sampling pool (tier 1 sampling sites) shall consist of single family structures to which either or both of the following provisions apply, giving priority to sites with higher potential risk for lead exposure:

(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 water supply, the supply may include these types of structures in its sampling pool.

(d) A community water supply that has insufficient tier 1 sampling sites 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, giving priority to sites with higher potential risk for lead exposure:

(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) A community water supply that has insufficient tier 1 and tier 2 sampling sites 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 July 1988. A community water 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 supply (tier 1 sampling sites) shall consist of buildings to which either or both of the following provisions apply, giving priority to sites with higher potential risk for lead exposure:

(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) A nontransient, noncommunity water 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 July 1988. If additional sites are needed to complete the sampling pool, the nontransient noncommunity water 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) A water supply whose distribution system contains lead service lines shall draw 50% all of the samples 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 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 (e) to (g) of this subrule.

(2) Sample collection methods provisions for lead and copper monitoring in tap water are as follows:

(a) Sample collection methods at sites without lead service lines are as follows:

(a) (i) 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)–(d) of this subrule, shall be first draw samples. Sites shall not have undergone systematic flushing and the tap aerator shall not have been removed or cleaned in anticipation of sampling efforts conducted under this subrule.

(b)–(ii) Each first draw tap sample for lead and copper shall be collected in a wide-mouth bottle 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 collected in a wide-mouth bottle 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 under subdivision (e) of this subrule shall be collected in a wide-mouth bottle 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 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 method before the sample can be analyzed. If a supply allows residents to perform sampling, the supply shall not challenge the accuracy of the sampling results based on alleged errors in sample collection.

(b) Sample collection methods at sites served by lead service lines are as follows:

(i) All tap samples for lead and copper collected in compliance with this subrule shall consist of a first draw sample followed by a second sample collected at the same tap as follows:

(A) Samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. Samples from a nonresidential building shall be collected at an interior tap from which water is typically drawn for consumption. Sites shall not have undergone systematic flushing and the tap aerator shall not have been removed or cleaned in anticipation of sampling efforts conducted under this subrule.

(B) Each first draw tap sample for lead and copper shall be collected in a wide-mouth bottle 1 liter in volume and have stood motionless in the plumbing system of each sampling site for not less than 6 hours.

(C) Following the first draw 1 liter sample, a second sample shall be collected immediately after 5 more liters of water have been drawn through the tap. The second sample shall be collected in a wide-mouth bottle 1 liter in volume.

(ii) Samples may be collected by the supply or the supply may allow residents to collect samples after instructing the residents about the sampling procedures specified in this subdivision. To avoid problems of residents handling nitric acid, acidification of 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 method before the
sample can be analyzed. If a supply allows residents to perform sampling, the 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 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) (c) A 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 water supply cannot gain entry to a sampling site to collect a follow-up tap sample, the supply may collect the follow-up tap sample from another sampling site in its sampling pool.

(e) (d) A nontransient noncommunity water supply, or a community water supply that meets the criteria of R 325.10410(3)(g), that does not have enough taps that can supply first draw samples, as defined in R 325.10105, may apply to the department, in writing, to substitute non-first draw samples. The department has the discretion to waive the requirement for prior department approval of non-first draw sample sites selected by the supply, either through department regulation or written notification to the supply.

(3) Water supplies shall collect at least 1 sample, or 2 samples if subject to subrule (2)(b) of this rule, 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 supply that conducts reduced monitoring under subrule (4)(d) of this rule shall collect at least 1 sample, or 2 samples if subject to subrule (2)(b) of this rule, 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 water supply is conducting reduced monitoring.

<table>
<thead>
<tr>
<th>Supply Size (Number of People Served)</th>
<th>Number of Sites (Standard Monitoring)</th>
<th>Number of Sites (Reduced Monitoring)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 100,000</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>10,001 to 100,000</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>3,301 to 10,000</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>501 to 3,300</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>101 to 500</td>
<td>10</td>
<td>5</td>
</tr>
</tbody>
</table>
(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 supplies shall begin on the following dates:

<table>
<thead>
<tr>
<th>Supply Size (Number of People Served)</th>
<th>First 6-Month Monitoring Period Begins On</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 50,000</td>
<td>January 1, 1992</td>
</tr>
<tr>
<td>3,301 to 50,000</td>
<td>July 1, 1992</td>
</tr>
<tr>
<td>Fewer than 3,301</td>
<td>July 1, 1993</td>
</tr>
</tbody>
</table>

All large water supplies shall be monitored during 2 consecutive 6-month periods. All small and medium size water supplies shall be monitored during each 6-month monitoring period until either of the following occurs:

(i) The supply exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment under R 325.10604f(2), in which case the supply shall continue monitoring under subdivision (b) of this subrule.

(ii) The supply is in compliance with the lead and copper action levels during 2 consecutive 6-month monitoring periods, in which case the 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) A large water 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) A small or medium size water supply that installs optimal corrosion control treatment under R 325.10604f(2)(e)(iv) shall monitor during 2 consecutive 6-month monitoring periods by the date specified in R 325.10604f(2)(e)(v).

(iii) A 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 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) A small or medium size water 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 water supply that meets the lead and copper action levels 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 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) A small or medium size water supply without optimal corrosion control treatment installed and 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 may reduce the frequency of sampling to once every 3 years. A water supply with optimal corrosion control treatment installed may reduce the frequency of monitoring for lead and copper at the tap from annually to once every 3 years if the lead ninetieth percentile computed under R 325.10604f(1)(c) is less than or equal to 0.005 mg/l and the copper ninetieth percentile computed under R 325.10604f(1)(c) is less than or equal to 0.65 mg/l for 3 consecutive years of monitoring, 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) are maintained 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 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 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 supplies collecting a reduced number of samples. The period shall be 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 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 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) 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 not later than 21 months after the previous round of sampling. 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 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. Small water 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 water supply without corrosion control treatment installed 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) A small or medium size water 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 supply shall also conduct water quality parameter monitoring under R 325.10710b(4), (5), or (6), as appropriate, during the monitoring period in which it exceeded the action level. The 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) 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) 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 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 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 subdivision and the 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 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 supply has received written approval from the department to resume triennial monitoring.
(3) The 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 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) A water supply subject to a reduced monitoring frequency under subdivision (d) of this subrule shall notify the department in writing under R 325.10710d(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 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 325.10604f(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 supply shall report the results of all samples to the department and all supporting documentation for samples the 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 water supply shall collect replacement samples for the samples invalidated under this rule if, after the invalidation of 1 or more samples, the 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) A small water 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 supply meets the criteria in subdivisions (a) and (b) of this subrule only for lead, or only for copper, the 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 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 water supply shall provide certification and supporting documentation to the department that the supply is free of all lead containing materials and that the supply complies with both of the provisions in this paragraph. Both of the following apply:

(A) It does not contain plastic pipes that contain lead plasticizers or plastic service lines that contain lead plasticizers.

(B) 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 under "Prohibition on Use of Lead Pipes, Solder, and Flux: Plumbing Fittings and Fixtures" 42 U.S.C. 300G-6(e), (2006), which is available on the Internet at http://www.law.cornell.edu/uscode/text/42/300g-6.

(ii) To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper, that is, a "copper waiver", the water supply shall provide certification and supporting documentation to the department that the supply does not contain copper pipes or copper service lines.

(b) The supply shall have completed at least 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 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 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 supply shall demonstrate that the ninetieth percentile copper level does not exceed 0.65 mg/l.

(c) The department shall notify the 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 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 small supply shall continue monitoring for lead and copper at the tap as required by subdivisions (a) 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) A supply with a full waiver 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) A supply with a partial waiver 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 supply also shall continue to monitor for the non-waived contaminant under requirements of subrule (4)(a) to (d) of this rule, as appropriate.

(iii) A water supply with a full or partial waiver 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 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 water supply.

(iv) If a water supply with a full or partial waiver becomes aware that 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 supply shall notify the department, in writing, not later than 60 days after becoming aware of
the change.

e) If the 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) to (iii) of this subdivision occurs.
A supply whose waiver has been revoked 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 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 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 supply, in writing setting forth the basis of its decision, that the waiver
has been revoked.

(f) A 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 supply exceeds the lead or copper action level, or both, the 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 supply meets both the lead and the copper action level, the 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 supply waivers approved by the department, in writing, before April 11, 2000, shall
remain in effect if the supply has demonstrated that it is both free of lead containing and copper
containing materials, as required by subdivision (a) of this subrule, and that its ninetieth percentile lead
levels and ninetieth percentile copper levels meet the criteria of subdivision (b) of this subrule, and that
the supply continues to meet the waiver eligibility criteria of subdivision (e) of this subrule. The first
round of tap water monitoring conducted under subdivision (d) of this subrule shall be completed not
later than 9 years after the last time the 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. 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 supplies.

(b) Small and medium size water supplies that exceed the lead or copper action level or have optimal
corrosion control treatment installed.

(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 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). (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 supply draws water from more than 1 source and the sources are combined before distribution, the 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 supply is required to collect are as follows:
(a) A 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:

<table>
<thead>
<tr>
<th>Supply Size (Number of People Served)</th>
<th>Number of Sites for Water Quality Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 100,000</td>
<td>25</td>
</tr>
<tr>
<td>10,001 to 100,000</td>
<td>10</td>
</tr>
<tr>
<td>3,301 to 10,000</td>
<td>3</td>
</tr>
<tr>
<td>501 to 3,300</td>
<td>2</td>
</tr>
<tr>
<td>101 to 500</td>
<td>1</td>
</tr>
<tr>
<td>Fewer than 101</td>
<td>1</td>
</tr>
</tbody>
</table>

(b) Except as provided in subrule (5)(c) of this rule, a 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 supply shall collect 1 sample for each applicable water quality parameter at each entry point to the distribution system.

(4) A large water 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). A small or medium size water 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 supply exceeds the lead or copper action level or if optimal corrosion control treatment is installed:
(a) At taps, 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.

(viii) Sulfate.
(ix) Chloride.
(b) At each entry point to the distribution system, a water supply shall measure each of the applicable parameters that are listed in subdivision (a) of this subrule.
(5) A large water 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). A small or medium size water 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 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 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.
   (iv) Sulfate.
   (v) Chloride.

(c) A ground water 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 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 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), large water 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)(g) every 6 months with the first 6-month period to begin on either January 1 or July 1, whichever comes first, after the department specifies the optimal values under R 325.10604f(3)(f). A small or medium size water supply shall measure the applicable water quality parameters under subrule (5) of this rule during each 6-month monitoring period, as specified in this subrule that the supply exceeds the lead or copper action level. For the small or medium size water supply subject to a reduced monitoring frequency under R 325.10710a(4)(d) when the action level is exceeded, the start of the applicable 6-month period under this subrule shall coincide with the 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)(g).

(7) Reduced monitoring provisions are as follows:
   (a) A 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 supply may reduce the number of sites from which it monitors during each 6-month monitoring period to the following:

<table>
<thead>
<tr>
<th>Supply Size (Number of People Served)</th>
<th>Reduced Number of Sites For Water Quality Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 100,000</td>
<td>10</td>
</tr>
<tr>
<td>10,001 to 100,000</td>
<td>7</td>
</tr>
<tr>
<td>3,301 to 10,000</td>
<td>3</td>
</tr>
<tr>
<td>501 to 3,300</td>
<td>2</td>
</tr>
<tr>
<td>101 to 500</td>
<td>1</td>
</tr>
<tr>
<td>Fewer than 101</td>
<td>1</td>
</tr>
</tbody>
</table>

(b) Reduced monitoring frequency provisions are as follows:

(i) A 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 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 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(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 water supply that conducts sampling annually shall collect the samples evenly throughout the year to reflect seasonal variability.

(d) A water supply subject to the reduced monitoring frequency 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)(g) shall resume distribution system tap water sampling under the number and frequency requirements specified in subrule (6) of this rule. The 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) 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.

(9) Table 1 of this rule reads as follows:
Table 1 Summary of Monitoring Requirements for Water Quality Parameters - Lead, Copper, Corrosion Control

<table>
<thead>
<tr>
<th>Monitoring Period</th>
<th>Parameters</th>
<th>Location</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial monitoring</td>
<td>pH, alkalinity, orthophosphate or silica³, calcium, conductivity, temperature, sulfate, chloride</td>
<td>Taps and at entry point or points to distribution system</td>
<td>6 months</td>
</tr>
<tr>
<td>After installation of corrosion control</td>
<td>pH, alkalinity, orthophosphate or silica², calcium³</td>
<td>Taps</td>
<td>Every 6 months</td>
</tr>
<tr>
<td></td>
<td>pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual⁴, sulfate, chloride</td>
<td>Entry point or points to distribution system⁶</td>
<td>At least every 2 weeks</td>
</tr>
<tr>
<td>After department specifies parameter values for optimal corrosion control</td>
<td>pH, alkalinity, orthophosphate or silica², calcium³</td>
<td>Taps</td>
<td>Every 6 months</td>
</tr>
<tr>
<td></td>
<td>pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual⁴, sulfate, chloride</td>
<td>Entry point or points to distribution system⁶</td>
<td>At least every 2 weeks</td>
</tr>
<tr>
<td>Reduced monitoring</td>
<td>pH, alkalinity, orthophosphate or silica³, calcium³</td>
<td>Taps</td>
<td>Every 6 months annually² or every 3 years³ at a reduced number of sites</td>
</tr>
<tr>
<td></td>
<td>pH, alkalinity dosage rate and concentration (if alkalinity adjusted control), inhibitor dosage rate and inhibitor residual⁴, sulfate, chloride</td>
<td>Entry point or points to distribution system⁶</td>
<td>At least every 2 weeks</td>
</tr>
</tbody>
</table>

¹ Table is for illustrative purposes; consult the text of this part for precise regulatory requirements.
² Small and medium size water supplies shall monitor for water quality parameters during monitoring periods in which the supply exceeds the lead or copper action level.
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. Calcium shall be measured when calcium carbonate stabilization is used as part of corrosion control. Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) shall be measured when an inhibitor is used. Ground water supplies may limit monitoring to representative locations throughout the system. 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. 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. 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 325.10710d Reporting requirements for lead, copper, and corrosion control.

Rule 710d. 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:

(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 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 water supply requests invalidation 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 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 water supply shall report the results of all water quality parameter samples collected under R 325.10710b(5) 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(3)(g), that does not have enough taps that can provide first draw samples, the 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)—(d) 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 supply under R 325.10710a(2) (e)—(d).

(B) If the department has waived prior approval of non-first draw sample sites selected by the 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 under R 325.10710a(2) (e)—(d) and include this information with the lead and copper tap sample results submitted under subdivision (a)(i) of this subrule.

(iii) 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, a water supply considered to have optimized corrosion control under R 325.10604f(2)(b), a system subject to reduced monitoring under R 325.10710a(4)(d), or a system subject to a monitoring waiver under R 325.10710a(7) shall submit written documentation to the department describing the change or addition.

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 adding ozone, 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) A small water supply applying for a monitoring waiver under R 325.10710a(7), or subject to a waiver granted 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), a small water 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 under R 325.10710a(7)(b) or R 325.10710a(7)(d)(i), a small water 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 it becomes aware that the system is no longer free of lead containing or copper containing material, or both, as appropriate, a small water 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 supply plans to remove these materials.
(v) Each ground water supply that limits water quality parameter monitoring to a subset of entry points under R 325.10710b(5)(c), the 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 water supply shall report the sampling results for all source water samples collected under R325.10710c 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 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 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 supply that has already optimized corrosion control, the information required in R 325.10604f(2)(b)(ii) or (iii).

(ii) For a supply required to optimize corrosion control, the supply's recommendation regarding optimal corrosion control treatment under R 325.10604f(3)(a).

(iii) For a 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 supply required to install optimal corrosion control designated by the department under R 325.10604f(3)(d), documentation certifying that the supply has completed installing the optimal corrosion control.

(d) A 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 supply's recommendation regarding source water treatment.

(ii) For a supply required to install source water treatment under R 325.10604f(4)(b)(ii), documentation certifying that the supply has completed installing the treatment designated by the department within 24 months after the department designated the treatment.

(e) A 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) Not later than 12 months after the end of a monitoring period in which a supply exceeds the lead action level in sampling referred to in R 325.10604f(5)(a), the supply shall submit written documentation to the department of the materials evaluation conducted as required in R 325.10710a(1) or the materials inventory required under R 325.11604(c), identify the initial number of lead service lines in its distribution system at the time the supply exceeds the lead action level, and provide the supply's schedule for annually replacing not less than 7% of the initial number of lead service lines in its distribution system.

(ii) Not later than 12 months after the end of a monitoring period in which a supply exceeds the lead action level in sampling referred to in 325.10604f(5)(a), and every 12 months thereafter, the supply shall submit a written report to the department that demonstrates the 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(5)(e–d), 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 (i) of this subrule or the percentage specified by the department under R 325.10604f(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 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). 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 water supply shall provide the following public education reporting information to the department:
(i) A water supply that is subject to the public education requirements in R 325.10410 shall, within 10 days after the end of each period in which the supply is required to perform public education tasks under R 325.10410(3), send written documentation to the department that contains both of the following:
(A) A demonstration that the supply has delivered the public education materials that meet the content requirements in R 325.10410(2) and the delivery requirements in R 325.10410(3).
(B) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the supply delivered public education materials during the period in which the supply was required to perform public education tasks.
(ii) Unless required by the department, a 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 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(5).

(g) A 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 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 subdivision (a)(i)(C) of this rule if all of the following provisions are satisfied:
(i) The department has previously notified the supply that it will calculate the supply's ninetieth percentile lead and copper concentrations, based on the lead and copper tap results submitted under paragraph (ii)(A) of this subdivision, and has specified a date before the end of the applicable monitoring period by which the supply shall provide the results of lead and copper tap water samples.
(ii) The 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, under subdivision (a)(i)(A) 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 supply before the end of the monitoring period.

PART 15. OPERATION REPORTS AND RECORDKEEPING

R 325.11506 Retention of records; generally.

Rule 1506. (1) A community or noncommunity water 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 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 (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 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 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.

PART 16. GENERAL PLANS

R 325.11604  Contents of general plans for all applicable systems.

Rule 1604. The general plan for a waterworks system shall contain a description of the waterworks system, including both all 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, pumps, wells, and pumping facilities.

(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.

(c) Community and nontransient noncommunity water supplies shall complete a distribution system materials inventory as follows:

(i) By January 1, 2020, a supply shall complete and submit to the department, a preliminary distribution system materials inventory in a form and manner specified by the department. The preliminary inventory shall consist of a thorough assessment of distribution system materials based on existing sources of information.

(ii) By January 1, 2024, a supply shall submit a complete distribution system materials inventory, including verification methodology, and provide the results of the inventory to the department in a form and manner specified by the department. The materials inventory under this subsection shall identify whether and where construction materials listed in 40 C.F.R. §141.42(d) are present in the piping, storage structure, pumps, and controls used to deliver water to the public, including service lines.

(iii) The materials inventory shall include all materials in the service lines, including the privately owned portion. If a customer does not grant access necessary to evaluate the service line, the materials inventory requirements do not apply to the customer-owned portion of the service line to which access is not granted. The supply shall maintain a record of customers that fail to grant access. If access is denied, the record shall include the date of the denial, to whom the denial was communicated, and the denial itself if in writing. If the customer does not respond to requests for access, the record shall include the dates when and manner by which access was requested and by whom it was requested.

(iv) If the supply is unable to determine the content of sections of a service line, the supply shall, in writing, notify the owner and occupant of the potential for lead in the service line and provide information on lead hazards and remediation.

(v) Within 30 days of determining a service line contains lead or is presumed to contain lead, the supply shall provide the owner and occupant of the premises with a written notification of the service line material content. The notification shall include language encouraging residential customers to have a home plumbing materials evaluation completed.

(vi) A community water supply with lead service lines or service lines of unknown content shall include service line information in their annual consumer confidence report, including the number of lead service lines and number of service lines of unknown material. This information shall also be made available on the supply’s public website, or upon request if the supply does not have a website.

(vii) A supply with lead service lines shall annually provide the department a summary of service line repairs or replacements in a form and manner specified by the department.
(viii) A supply shall conduct a comprehensive update of its materials inventory every 5 years and submit the updated inventory to the department in a form and manner specified by the department.

R 325.11606   Community water supplies; additional general plan requirements; asset management program; capital improvements plan.

Rule 1606.  (1) A community water supply that serves more than 1,000 people shall implement an asset management program as defined in R 325.10102 beginning January 1, 2018, unless otherwise required in this subrule. Supplies may use the reference guide for asset management tools, May 2014, prepared by the U.S. Environmental Protection Agency and listed in R 325.10113 when developing an asset management program. Supplies shall include in the general plan each of the following:

(a) A summary detailing the system used to maintain an inventory of assets. Priority shall be given to an inventory of source, treatment, pumping, and distribution system assets.

(b) A summary describing the method used to assess the criticality of assets considering the likelihood and consequence of failure. Within 12 months of the due date of the preliminary distribution system materials inventory under R 325.11604(c)(i), the presence of lead service lines shall be a factor for prioritizing asset criticality in the asset management program.

(c) A statement of level of service goals.

(d) A capital improvements plan that identifies waterworks system needs for 5-year and 20-year planning periods. A publicly owned or operated supply shall comply beginning January 1, 2016. A privately owned supply shall comply beginning January 1, 2018.

(e) A summary detailing the funding structure and rate methodology that provides sufficient resources to implement the asset management program.

(2) A community water supply that serves 1,000 or fewer people and that is publicly owned or operated shall include in the general plan a capital improvements plan that identifies waterworks system needs for 5-year and 20-year planning periods. A supply shall comply beginning January 1, 2016.

(3) A community water supply 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.
NOTICE OF PUBLIC HEARING

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Drinking Water and Municipal Assistance Division

SUPPLYING WATER TO THE PUBLIC RULES
Rule Set 2017-008 EQ

NOTICE OF PUBLIC HEARING
THURSDAY, MARCH 1, 2018
Lansing Center
333 E. Michigan Avenue, Lansing
Ballrooms 5-8, 5:00 – 8:00 p.m.

The Michigan Department of Environmental Quality (DEQ), Drinking Water and Municipal Assistance Division (DWMAD), will hold a public hearing on Thursday, March 1, 2018, at the Lansing Center, 333 E. Michigan Avenue, Lansing, Michigan in Ballrooms 5-8 from 5:00 – 8:00 p.m. The hearing will be held to receive public comments on proposed changes to the Supplying Water to the Public rules.

The proposed rule set (2017-008 EQ) will amend the current rules to provide additional provisions that reduce exposure to lead in drinking water. These include the removal of lead service lines from drinking water distribution systems and lowering the action level for lead, in addition to other protective provisions.

These rules are promulgated by authority conferred on the Director of the DEQ by Section 5 of the Safe Drinking Water Act, 1976 PA 399, as amended (Act 399), identified as R 325.10101 through R 325.12820. These rules will take immediate effect upon filing with the Secretary of State.


Any interested person is invited to attend and present his or her views. It is requested that all statement be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the following address by 5:00 p.m. on March 7, 2018. Copies of the draft rules may also be obtained by mail or electronic transmission at the following address:

Drinking Water and Municipal Assistance Division    Michigan Department of Environmental Quality
(Attention: Suzann Ruch)
PO Box 30817    Lansing, Michigan 48909-8311
Phone: 517-284-6544    Fax: 517-241-1328
E-Mail: DEQ-LCR-Comments@michigan.gov

The hearing site is accessible, including handicap parking. People with disabilities requiring additional accommodations in order to participate in the hearing (such as information in alternative formats) should contact Suzann Ruch at 517-284-6544 at least 5 days prior to the hearing date. Individuals attending the meeting are requested to refrain from using heavily scented personal care products in order to enhance accessibility for everyone. Information at this meeting will be presented by speakers and printed handouts.
These rules become effective immediately upon filing with the Secretary of State unless adopted under section 33, 44, or 45a (6) of the 1969 PA 306. Rules adopted under these sections become effective 7 days after filing with the Secretary of State.


R 324.201, R 324.206, R 324.208, R 324.212, R 324.703, R 324.704, R 324.801, R 324.802, R 324.803, R 324.804, R 324.805, R 324.806, R 324.807, R 324.808 and R 324.1002 of the Michigan Administrative Code are amended; and R 324.809, R 324.810, R 324.811, R 324.812, R 324.813, R 324.814, and R 324.815 of the Code are added as follows:

PART 2. PERMITS TO DRILL AND OPERATE

R 324.201 Application for permit to drill and operate requirements; issuance of permit.

Rule 201. (1) Until a person has complied with the requirements of subrule (2) of this rule, a person shall not begin the drilling or operation of a well for any of the following:

(a) Oil or gas, or both.
(b) Injection for secondary recovery.
(c) Injection for the disposal of brine, oil or gas field waste, or other fluids incidental to the drilling, producing, or treating of wells for oil or gas, or both, or the storage of natural hydrocarbons or liquefied petroleum gas derived from oil or gas.
(d) Injection or withdrawal for the storage of natural dry gas or oil well gas.
(e) Injection or withdrawal for the storage of liquid hydrocarbons or liquefied petroleum gas.

(2) A permit applicant shall comply with all of the following permit application requirements:
(a) The exact well location shall be surveyed by a surveyor licensed in this state, a readily visible stake or marker shall be set at the well location, and a flagged route shall be established to the well location.
(b) The survey required by subdivision (a) of this subrule shall include a plat that shows all of the following:
(i) The correct well location and bottom hole location description.
(ii) A flagged route or explanation of how the well location may be reached.
(iii) Footages from the nearest section, quarter section, and drilling unit lines.
(iv) Information relative to the approximate distances and directions from the stake or marker to special hazards or conditions, including all of the following:
(A) Surface waters and other environmentally sensitive areas within 1,320 feet of the proposed well.
Environmentally sensitive areas are identified by the department pursuant to applicable state and federal laws and regulations.

(B) Floodplains associated with surface waters within 1,320 feet of the proposed well.

(C) Wetlands, as identified by the provisions of sections 30301 to 30323 of the act, within 1,320 feet of the proposed well.

(D) Natural rivers, as identified by the provisions of sections 30501 to 30515 of the act, within 1,320 feet of the proposed well.

(E) Critical dune areas, as designated by the provisions of sections 35301 to 35326 of the act, within 1,320 feet of the proposed well.

(F) Threatened or endangered species, as identified by the provisions of sections 36501 to 36507 of the act, within 1,320 feet of the proposed well.

(G) All buildings, recorded fresh water wells and reasonably identifiable fresh water wells utilized for human consumption, public roads, pipelines, and power lines that lie within 600 feet of the proposed well location.

(H) All public water supply wells identified as type I and IIa that lie within 2,000 feet of the proposed well location and type Ib and III that lie within 800 feet of the proposed well location, as defined in 1976 PA 399, MCL 325.1001 to 325.1023.

(I) Identification of the existing local zoning designation of the surface location of the well.

(c) If the applicant intends to utilize high volume hydraulic fracturing, the application shall include a list showing the specific identity and associated CAS number of each chemical constituent the applicant anticipates will be added to the primary carrier fluid, except that the specific identities and CAS numbers of trade secret chemicals may be withheld under the provisions of paragraph (i) of this rule.

(i) If the specific identity of a chemical constituent and its associated CAS number are a trade secret, the applicant may withhold the specific identity of the chemical constituent and its associated CAS number, but shall list the chemical family associated with the chemical constituent, or provide a similar description, and provide a statement that a claim of trade secret protection has been made by the entity entitled to make such a claim.

(ii) Listing of a chemical constituent under the requirements of this subdivision does not preclude a permittee from utilizing other chemical constituents in a high volume hydraulic fracturing operation; however, the chemical constituents actually used shall be submitted under the requirements of rule 1406 of these rules.

(d) One signed and sealed copy of the survey, on a form prescribed by the supervisor, shall be filed with an application for a permit to drill and operate or e-filed using a procedure approved by the supervisor.

(e) A person applying to drill and operate a well shall completely and accurately fill out, sign, and file a written application for a permit to drill on a form prescribed by the supervisor or e-filed using a procedure approved by the supervisor. The application shall be submitted to the supervisor at the offices of the Michigan Department of Environmental Quality, Office of Oil, Gas, and Minerals, P.O. Box 30256, Lansing, Michigan 48909, and a copy of the first page of the permit application shall be mailed to the clerk of the county and the surface owner of record of the land on which the well location is to be located within 7 days of submitting the permit application by first-class United States mail addressed to the surface owner's last known address as evidenced by the current property tax roll records.

(f) When the proposed well location is in or adjacent to any areas described in subdivision (b)(iv)(A) or (B) of this subrule, a person shall file for and obtain all applicable permits from the department of environmental quality before developing the well site or access to the well site or before drilling of the well. The person shall also file for and obtain any additional permits that may be required before the installation of flow lines or production equipment or before operating the well.

(g) A person shall file an environmental impact assessment as instructed by the supervisor.
(h) A person shall file an organization report if a current organization report is not on file with the supervisor.

(i) A person shall file a conformance bond or statement of financial responsibility pursuant to R 324.210.

(j) A person shall pay the fee as specified by statute. A fee filed with an application shall not be applied to a subsequent application. The fee shall be returned if a permit is not issued.

(k) **A person shall provide additional information as required in R 324.802** All of the following additional information shall be submitted with an application for a permit to drill and operate an injection well or to convert a previously drilled well to an injection well.

(i) A plat that shows the location and total depth of the proposed injection well, shows each abandoned, producing, or drilling well and dry hole within 1,320 feet of the proposed injection well location, and identifies the surface owner of the land on which the proposed injection well location is to be located and each operator of a producing leasehold within 1,320 feet of the proposed injection well location.

(ii) If a well is proposed to be converted to an injection well, a copy of the completion report, together with the written geologic description log or record filed pursuant to R 324.418(a) and borehole and stratum evaluation logs filed pursuant to R 324.419(1). The permittee shall also file an application for change of well status pursuant to R 324.511.

(iii) Plugging records of all abandoned wells and casing, sealing, and completion records of all other wells within 1,320 feet of the proposed injection well location. An applicant shall also submit a plan reflecting the steps or modifications believed necessary to prevent proposed injected fluids from migrating up, into, or through inadequately plugged, sealed, or completed wells.

(iv) A schematic diagram of the proposed injection well that shows all of the following information:

(A) The total depth or plug-back depth of the proposed injection well.

(B) The true vertical depth and thickness of the disposal or injection interval.

(C) The geological name of the disposal interval.

(D) The geological name and the top and bottom depths of all fresh water strata to be penetrated.

(E) The depths of the top and bottom of the casing or casings and cement to be used in the proposed injection well.

(F) The size of the casing and tubing and the depth of the packer.

(v) Information confirming that injection of liquids into the proposed zone will not exceed the fracture pressure gradient or, information showing that injection into the proposed geological strata will not initiate fractures through the overlying strata.

(vi) Proposed operating data, excluding injection wells utilized for gas storage, including all of the following data:

(A) The daily injection rates and pressures.

(B) The types of fluids to be injected.

(C) A qualitative and quantitative analysis of a representative sample of fluids to be injected. A chemical analysis shall be prepared for each type of fluid to be injected showing specific conductance as an indication of the dissolved solids and a determination of the concentration of the following parameters for chemical balance and indicators for comparison of water quality:

<table>
<thead>
<tr>
<th>Cations</th>
<th>Anions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>Chloride</td>
</tr>
<tr>
<td>Sodium</td>
<td>Sulfate</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Bicarbonate</td>
</tr>
<tr>
<td>Potassium</td>
<td></td>
</tr>
</tbody>
</table>

However, if the fluid to be injected is fresh water, then an analysis is not required.
(D) The geological name of the injection strata and the vertical distance separating the top of the injection strata from the base of the deepest underground source of drinking water.

(E) A plan for conducting 5-year mechanical integrity tests of casing pursuant to R 324.805.

(vii) For a proposed injection well to dispose of oil or gas field waste, or both, into a zone that would likely constitute a producing oil or gas pool, a list of all offset operators and certification that the person making application for an injection well has notified all offset operators of the person’s intention by certified mail. If within 21 days after the mailing date a substantive objection is filed with the supervisor by an offset operator, then the application shall not be granted without a hearing pursuant to part 12 of these rules. A hearing may also be scheduled by the supervisor to determine the need or desirability of granting permission for the proposed injection well.

(viii) A proposed plugging and abandonment plan.

(ix) Information demonstrating that construction of the well will prevent the movement of fluid containing any contaminant into an underground source of drinking water.

(l) A person shall receive and post the permit in a conspicuous place at the well location. The permit shall remain posted at the well location until well completion.

(3) A person who desires to directionally drill a well shall apply for and obtain a permit to drill and operate as provided in this rule. The application to drill a directionally drilled well shall include, in addition to the information specified in subrule (2) of this rule, all of the following information:

(a) The depth at which deviation from vertical is planned.
(b) The angle and path of each deviation.
(c) The proposed horizontal distance and direction from the well location to the bottom hole.
(d) The well's measured and true vertical depths.

(4) The supervisor shall process a permit application for a well and issue or deny a permit to drill and operate pursuant to section 61525 of the act. Pursuant to R 324.205, the supervisor shall not issue a permit to a person or an authorized representative of a person if the person is not eligible for a permit.

R 324.206 Modification of permits; deepening permits; change of ownership.

Rule 206. (1) A permit shall not be transferred to a location outside of the drilling unit.

(2) A permittee of a well who has not initiated drilling of a well shall not do either of the following:

(a) Change the well location within the drilling unit without the prior approval of the supervisor or authorized representative of the supervisor. To receive approval, a permittee shall return the permit to the Lansing office of the supervisor together with a revised application with corrected attachments and supplements. If the permittee requests a change in the well location greater than 165 feet from the permitted location, then a new permit and an additional fee are required. If the permittee requests a change in the well location to a location less than 165 feet from the permitted location, then the change will require a revised permit and no additional fee. A change of location for an injection well, regardless of distance, requires a new permit and an additional fee. Drilling shall not begin until the new permit or revised permit has been issued by the supervisor or authorized representative of the supervisor and posted at the drilling site.

(b) Change the method of drilling, casing and sealing programs, or other conditions of the permit without the prior approval of the supervisor or authorized representative of the supervisor. To receive approval, the permittee shall return the permit to the Lansing office of the supervisor together with a revised application with corrected attachments and supplements. If the permittee only requests a modification of the existing permit conditions, then an additional fee is not required. Drilling shall not begin until the revised permit has been approved by the supervisor or authorized representative of the supervisor and posted at the drilling site.

(3) A permittee of a well who begins the drilling of a well and encounters drilling problems or other
drilling conditions that necessitate a change shall not do either of the following:

(a) Change the well location within the drilling unit, other than as provided by R 324.203, without the prior approval of the supervisor or authorized representative of the supervisor. To receive approval to change the well location, the permittee shall return the permit to the Lansing office of the supervisor together with a revised application with corrected attachments and supplements. Drilling shall not begin at the new location until the new revised permit has been issued by the supervisor or authorized representative of the supervisor. A new permit and an additional fee are required.

(b) Change the method of drilling, casing and sealing programs, or other conditions of the permit without the prior approval of the supervisor or authorized representative of the supervisor. To receive approval to modify an existing permit condition only, the permittee shall contact the supervisor or authorized representative of the supervisor by letter, telephone, or visit and explain the drilling circumstances and request the necessary changes to the permit. The supervisor or authorized representative of the supervisor may give verbal approval to modify the permit with conditions for additional reporting requirements by the permittee. If approval to modify an existing permit is granted, then the revised permit and corrected attachments and supplements shall be filed, within 10 days, at the offices of the Michigan Department of Environmental Quality, Office of Oil, Gas, and Minerals, P.O. Box 30256, Lansing, Michigan 48909. An additional permit fee is not required.

(4) A permittee of a well who desires to deepen a well below the permitted stratigraphic or producing horizon where well completion has occurred shall file an application for a deepening permit. The application shall set forth, in detail, the new proposed total depth and the plan for casing and sealing off the oil, gas, brine, or fresh water strata to be found, or expected to be found, in the deepening operation. The deepening operation shall not be commenced until the application has been approved by the supervisor or authorized representative of the supervisor. A deepening permit and an additional fee are required.

(5) A permittee of a well who desires to continue the drilling of a well below the permitted depth, but within the permitted stratigraphic or producing horizon where drilling completion or well completion has occurred, shall file an application for change of well status pursuant to R 324.511. The application shall set forth, in detail, the new proposed total depth and the plan for casing and sealing off the oil, gas, brine, or fresh water strata found, or expected to be found, when drilling is continued. The approval of the change of well status shall serve to revise the permit to reflect the new permitted depth. The continuation of drilling shall not be commenced until the application for change of well status has been approved by the supervisor or authorized representative of the supervisor. To obtain approval to continue the drilling below the permitted depth, but within the permitted stratigraphic or producing horizon with the drilling rig then on location, the permittee shall contact the supervisor or authorized representative of the supervisor by letter, telephone, or visit and explain the circumstances for the request to continue the drilling. The supervisor or authorized representative may give verbal approval to continue the drilling below the permitted depth, but within the permitted stratigraphic or producing horizon. If approval to continue the drilling is granted, then the permittee shall file the application for change of well status pursuant to R 324.511, within 10 days of approval, at the offices of the Michigan Department of Environmental Quality, Office of Oil, Gas, and Minerals, P.O. Box 30256, Lansing, Michigan 48909. An additional permit fee is not required.

(6) If a permittee of a well conveys his or her rights as an owner of a well to another person, or ceases to be the authorized representative of the owner of a well, before final completion, then a request for the transfer of the permit to the acquiring person shall be submitted by the acquiring person to the supervisor at the offices of the Michigan Department of Environmental Quality, Office of Oil, Gas, and Minerals, P.O. Box 30256, Lansing, Michigan 48909, on forms as prescribed by the supervisor. The transfer of the permit may be approved upon receipt of a properly completed request, including the
signatures of the permittee of record and the acquiring person, and upon the filing by the acquiring person of the conformance bond or a statement of financial responsibility as required by R 324.210. Pending the transfer of the existing permit, the acquiring person shall not operate the well. The acquiring person shall be required to file an organization report pursuant to R 324.201(2)(h).

(7) A permit for a well shall not be transferred to a person who has been determined to be in violation of any of the following until the permittee has corrected the violation or the supervisor has accepted a compliance schedule and a written agreement has been reached to correct the violations:

(a) The act.
(b) These rules.
(c) Permit conditions.
(d) Instructions.
(e) Orders of the supervisor.
(f) An order of the department of environmental quality.

An additional conformance bond covering the period of the compliance schedule may be required. The conformance bond is in addition to the conformance bonds filed pursuant to R 324.212(a) or (b).

(8) If the permittee of a well is under notice because of unsatisfactory conditions at the well site involved in the transfer, then the permit for a well shall not be transferred to a person until the permittee has completed the necessary corrective actions or the acquiring person has entered into a written agreement to correct all of the unsatisfactory conditions.

R 324.208 Termination of permit.

Rule 208. (1) A Subject to subrule (2) of this rule, a permit issued pursuant to R 324.201(4), or transferred pursuant to R 324.206(6) or rules that were in effect before the effective date of these rules, shall terminate 2 years after the date of issuance, unless the drilling operation has reached a depth of not less than 100 feet below the ground surface elevation and the drilling operation is diligently proceeding or the well is otherwise being used for its permitted purpose.

(2) If a permit is subject to termination under this rule, the permittee may submit a written request to the supervisor to extend the permit at least 30 days before the scheduled termination date. Upon receipt of a request, the supervisor may extend the permit for a period of up to 2 additional years provided there have been no significant changes in the features or conditions described in R 324.201, or in requirements of these rules or the act, that would require modifications of the permit.

(3) Terminated permits may not be reactivated or transferred and the permit fee shall not be refunded.

R 324.212 Conformance bond amounts.

Rule 212. A person who drills or operates a well shall file a conformance bond with the supervisor for the following amounts, as applicable:

(a) Single well conformance bonds shall be filed in the following amounts, as applicable:
   (i) $10,000.00-$20,000.00 for wells up to and including 2,000 feet deep, true vertical depth.
   (ii) $20,000.00-$40,000.00 for wells deeper than 2,000 feet, but not deeper than 4,000 feet, true vertical depth.
   (iii) $25,000.00-$50,000.00 for wells deeper than 4,000 feet, but not deeper than 7,500 feet, true vertical depth.
   (iv) $30,000.00-$60,000.00 for wells deeper than 7,500 feet, true vertical depth.
   (b) A person may file single well conformance bonds in an amount equal to 1/2 of the amount specified in subdivision (a) of this rule for wells where well completion operations have not commenced. A person shall not file single well conformance bonds under this subdivision for more than 5 wells.
person shall file single well conformance bonds in the full amount specified in subdivision (a) of this rule or file a blanket conformance bond as specified in subdivision (c) of this rule or submit a statement of financial responsibility pursuant to R 324.210 before the commencement of well completion operations on any well.

(c) Blanket conformance bonds may be filed as an alternative to single well conformance bonds. If a blanket conformance bond is utilized, then the permittee shall provide the supervisor with a list of wells covered by the blanket conformance bond. A maximum of 100 wells may be covered by a blanket conformance bond. If the permittee has more than 100 wells in a category, then the additional wells may be covered by single well conformance bonds or additional blanket conformance bonds. Blanket conformance bonds shall be filed in the following amounts, as applicable:

(i) $100,000.00 for wells up to and including 2,000 feet deep, true vertical depth.
(ii) $200,000.00 for wells deeper than 2,000 feet, but not deeper than 4,000 feet, true vertical depth.
(iii) $250,000.00 for wells deeper than 4,000 feet, true vertical depth.

(d) A person shall not be required to file a blanket conformance bond or bonds in an aggregate amount of more than $250,000.00. When the aggregate amount of the conformance bonds is $250,000.00, the permittee may file 1 blanket conformance bond of $250,000.00 to cover all of his or her wells.

PART 7. DISPOSAL OF OIL OR GAS FIELD WASTE, OR BOTH

R 324.703 Disposal of oil or gas field fluid wastes, or both. Rule 703. A permittee of a well shall inject oil or gas field fluid wastes, or both, into an approved underground formation in a manner that prevents waste. The disposal formation-injection interval shall be isolated from fresh water strata underground sources of drinking water by an impervious confining formation interval.

R 324.704 Use of annular space for disposal prohibited; temporary exception. Rule 704. A permittee of a well shall not dispose of fluid wastes in the annular space between strings of casing. The supervisor may grant a temporary exception to the prohibition if the supervisor determines that annular disposal will not damage underground fresh sources of drinking water, oil, gas, or other minerals.

PART 8. INJECTION WELLS

R 324.801 Construction and operation of injection wells Definitions. Rule 801. As used in these rules: (1) A permittee of a well shall ensure that the injection of fluid into a well is through adequate tubing and packer. During injection operations, the tubing to casing annulus shall be filled with a noncorrosive liquid. Injection wells utilized for gas storage are exempt from this subrule.

(2) A permittee of a well shall ensure that surface access to all casing annuli is provided.

(3) A permittee of a well shall ensure that an injection well is constructed and operated so that the injection of fluids is confined to strata approved by the supervisor or authorized representative of the supervisor.

(4) A permittee of a well shall ensure that construction, operation, maintenance, conversion, and plugging and abandonment of the well will not allow the movement of fluid containing any contaminant into an underground source of drinking water.

(a) "Administrator" means the administrator of the USEPA.

(b) "Area of review" means that area within a fixed radius of 1320 feet around an injection well.
(c) “Class II Well” means a well that does either of the following:
   (i) Injects fluids under any of the following conditions:
       (A) That are brought to the surface in connection with oil or natural gas production and may be
           commingled with waste waters from gas plants which are an integral part of production
           operations, unless those waters are classified as a hazardous waste at the time of injection.
       (B) For enhanced recovery of oil or natural gas.
       (C) For storage of hydrocarbons that are liquid at standard temperature and pressure.
   (ii) Utilizes diesel fuel as a component of hydraulic fracturing fluid.
   (d) "Class II well operator" means the person having secured a permit for any of the following:
       (i) A new Class II well.
       (ii) An existing Class II well.
       (iii) A conversion of an existing well to a Class II well.
       (iv) A rule authorized well in operation before the effective date of primacy.
   (e) “Commercial disposal well” means a Class II well that is permitted to accept wastes other
       than those generated by the owner or operator of the well.
   (f) “Confining interval” means a geological formation, group of formations, or part of a
       formation that is capable of limiting fluid movement above an injection interval.
   (g) “Contaminant” means any physical, chemical, biological, or radiological substance or matter
       in water.
   (h) "Date of primacy" means the effective date of the Administrator’s approval of the Michigan
       underground injection control program for Class II wells pursuant to section 1425 of the federal
   (i) “Diesel fuel” means fluids that are associated with 5 specific Chemical Abstracts Services
       Registry Numbers (68334-30-5, 68476-34-6, 68476-30-2, 68476-31-3, and 8008-20-6).
   (j) “Endangerment to an underground source of drinking water” means the presence of a
       contaminant in an underground source of drinking water, which supplies or may reasonably be
       expected to supply any public water system, where both of the following apply:
       (A) The presence of the contaminant results from an injection operation.
       (B) The presence of that contaminant may result in violation of any national primary drinking
           water regulation or may otherwise adversely affect the health of persons.
   (k) “Existing Class II well” means a Class II well that has been approved, constructed, or
       converted prior to date of primacy.
   (l) “Injection casing” means the long string of casing set into, through, or just above the injection
       interval, in which the packer and tubing may be set.
   (m) “Injection interval” means the geological formation or group of formations or part of a
       formation receiving fluids through an injection well. There must be a confining interval above the
       injection interval.
   (n) "Karst" means a type of topography that is formed over limestone, dolomite, or gypsum by
       solution of the rock and is characterized by closed depressions or sinkholes, caves, and
       underground drainage.
   (o) "Mechanical integrity" means a well condition that exists if there is no significant leakage in
       the well’s casing, tubing, or packer and if there is no significant fluid movement into an
       underground source of drinking water through vertical channels adjacent to the injection well
       bore.
   (p) “New Class II well” means a Class II well that is constructed or converted under Part 615
       after date of primacy.
   (q) “Part 615” means Part 615 of 1994 PA 451, MCL 324.61501 to 324.627.
(r) “Rule authorized well” means a Class II well that was classified and/or treated by the USEPA as an authorized by rule well on or after January 1, 1984.
(s) "USEPA" means the United States Environmental Protection Agency.

R 324.802 Temporary authority to inject

Application for permit to drill, convert, and operate injection well.

Rule 802. The supervisor may grant a permittee of a well temporary authorization, for a period of not more than 30 days, to inject fluid for the limited purpose of running injectivity tests. Injection wells utilized for gas storage are exempt from this rule. In addition to requirements in R 324.201, the following additional information shall be submitted with an application for a permit to drill and operate an injection well or to convert a previously drilled well to an injection well:

(a) Notification information including the following:
   (i) The name and address of the permittee of each oil, gas, and injection well and permitted location or locations within 1,320 feet of the proposed injection well location.
   (ii) The name and address of the last surface owner or owners of record within 1,320 feet of a proposed Class II well location as reasonably determined by the records of the register of deeds office or equalization records.

(b) Required plat pursuant to R 324.201, that also shows the following:
   (i) The location and total depth of the proposed injection well.
   (ii) Each oil, gas, injection, and abandoned well and permitted location or locations within 1,320 feet of the proposed injection well location.
   (iii) The surface owner or owners of record of the land on which the proposed injection well is to be located.
   (iv) Each permittee of a well or permitted well location within 1,320 feet of the proposed injection well.

(v) Fresh water and public water supply wells within 1,320 feet of the proposed injection well.
   (c) If a well is proposed to be converted to an injection well, all requirements of R 324.201(1) and R 324.201(2) apply, and the applicant must submit a copy of the completion report, together with the written geologic description log or record filed pursuant to R 324.418(a) and borehole and stratum evaluation logs filed pursuant to R 324.419(1).

(d) Plugging records of all abandoned wells and casing, sealing, and completion records of all other wells within 1,320 feet of the proposed injection well location. An applicant shall also submit a plan reflecting the steps or modifications believed necessary to prevent proposed injected fluids from migrating into an underground source of drinking water through inadequately plugged, sealed, or completed wells.

(e) A schematic diagram of the proposed injection well that shows all of the following information:
   (i) The total depth or plug-back depth of the proposed injection well.
   (ii) The geological formation name or names, true vertical depth, thickness, and lithology of the injection interval, and the confining interval.
   (iii) The geological formation name or names and the top and bottom depths of all underground sources of drinking water to be penetrated.
   (iv) The depths of the top and bottom of the casing or casings and cement to be used in the proposed injection well.
   (v) The size of the casing and tubing and the estimated depth of the packer if applicable.

(f) Information confirming that injection of fluids into the proposed injection interval will not exceed the fracture pressure gradient and information showing that injection into the injection
interval will not initiate fractures through the overlying confining interval.

(g) For Class II wells, proposed operating data, including all of the following:

(i) The maximum anticipated daily injection rate expressed as barrels per day or thousand cubic feet per day.

(ii) The types of fluids to be injected.

(iii) Maximum anticipated injection pressure, expressed as psig at the well head, and calculations used to derive that value.

(iv) A qualitative and quantitative analysis of a representative sample of fluids to be injected. A chemical analysis shall be prepared for each type of fluid to be injected showing specific conductance as an indication of the dissolved solids, specific gravity, and a determination of the concentration of calcium, sodium, magnesium, potassium, chloride, sulfate, and bicarbonate. However, if the fluid to be injected is fresh water, then an analysis is not required.

(v) The geological name of the injection interval and the vertical distance separating the top of the injection interval from the base of the deepest underground source of drinking water.

(h) For a proposed injection well to dispose of oil or gas field waste, or both, into an interval that would likely constitute a producing oil or gas pool, a list of all offset operators and certification that the person making application for an injection well has notified all offset operators of the person’s intention by certified mail. If within 21 days after the mailing date a substantive objection is filed with the supervisor by an offset operator, then the application shall not be granted without a hearing pursuant to part 12 of these rules. The supervisor may schedule a hearing to determine the need or desirability of granting permission for the proposed injection well.

(i) Identification and description of all faults, structural features, karst, mines, and lost circulation zones within the area of review that can influence fluid migration, well competency, or induced seismicity. The applicant shall include a plan for mitigating risks of identifiable features.

(j) A proposed plugging and abandonment plan and schematic.

(k) Information demonstrating that construction of the well will prevent the movement of fluid that causes endangerment to an underground source of drinking water.

---

R 324.803 Testing before operation of injection wells Class II well notification, public comment, and public hearing.

Rule 803. (1) Before injecting fluid into a newly drilled injection well, or into a previously existing well that has been newly converted to an injection well, a permittee of a well shall provide for a test of the annulus between the innermost casing and the tubing above the packer. The test shall be conducted by a qualified person and the test shall be at a pressure of not less than 300 psig. The difference in pressure between the testing pressure and the tubing pressure shall be not less than 100 psig at the time of the test. A satisfactory test shall have a bleed off of not more than 5% over a period of 30 minutes.

(2) Before the test, a permittee of a well shall notify the supervisor or authorized representative of the supervisor of the date and time of the test. A certified copy of the test procedure and results shall be filed with the supervisor by the qualified person making the test. The supervisor or authorized representative of the supervisor, after evaluating the test results and determining the mechanical integrity of the packer and casing string immediately outside the tubing, may approve injection operations to begin.

(3) Injection wells utilized for gas storage are exempt from this rule. Within 10 days after receipt of a Class II well permit application the supervisor shall mail notice to each surface owner of record and well permittee of each oil, gas, and injection well within 1,320 feet of the proposed injection
well, and shall post the notice on the department website concurrently with the weekly permit list publishing. All of the following information must be included on the notice:

(a) Date of notice.
(b) Applicant’s name and address.
(c) Proposed well location, listing the county, township, range, section, and distance from nearest road intersections.
(d) Geological formation name and depth of injection interval.
(e) Maximum anticipated injection pressure, expressed as psig at the well head.
(f) Maximum anticipated daily injection rate expressed as barrels per day or thousand cubic feet per day.
(g) Information on how to submit comments on the application to the supervisor.
(h) A statement that comments on or objects to an application, or a request to obtain additional information about the application, must be received by the supervisor within 30 days after the date of notice set forth in the notice.
(i) Notification required in this subrule is a matter of public policy and not as a requirement of jurisdiction, and therefore will not be a bar to processing of the application if substantial compliance is achieved toward notification.

(2) The supervisor shall review all comments and objections to the proposed Class II well received from interested persons during the comment period. If the supervisor determines that a comment or objection from an interested person requires further investigation or review because it raises a significant and relevant issue indicating that the operation of the proposed well will cause an endangerment to an underground source of drinking water then the supervisor may ask the interested person and/or the applicant to submit additional information within 15 days in an attempt to resolve the comment or objection. If the supervisor is unable to resolve the issue after receiving timely submitted additional information, then the supervisor may hold a non-evidentiary public hearing on the application. The public hearing is for gathering public comment on a proposed permit and is not an evidentiary hearing pursuant to R 324.1201 to R 324.1205. The supervisor shall review and consider all relevant comments and post responses to the comments on the department website. The supervisor shall not issue a permit to drill and operate a Class II well or convert a well to a Class II well until the 30-day comment period described above has expired, or a public hearing as described in this subrule, if any, has been held.

(3) The provisions of this rule are effective only upon the date of primacy.

R 324.804 Maximum injection pressure Construction and operation of injection wells.

Rule 804. During disposal operations, a permittee shall ensure that the surface injection pressure does not exceed a pressure determined by the following equation:

\[ P_m = (f_{pg} - 0.433\, s_g) d \]

where
- \( P_m \) = surface injection pressure
- \( f_{pg} \) = fracture pressure gradient (if unknown, assume 0.800)
- \( s_g \) = specific gravity of the injection liquid (if unknown, assume 1.2)
- \( d \) = injection depth in feet (true vertical depth).

(1) A permittee of a well shall ensure that the injection of fluid into a well is through adequate tubing and packer. During injection operations, the permittee shall fill the tubing to casing annulus with a noncorrosive liquid. For Class II wells, the packer shall be set within 100 feet of the base of the injection casing or within 100 feet of the top perforation of the injection interval, unless otherwise approved by the supervisor. Injection wells utilized for gas storage are exempt from this subrule.
(2) A permittee of a well shall ensure that surface access to all casing annuli is provided.
(3) A permittee of a well shall ensure that an injection well is constructed and operated so that the injection of fluids is confined to injection interval or intervals approved by the supervisor or authorized representative of the supervisor.
(4) A permittee of a well shall ensure that construction, operation, maintenance, conversion, and plugging and abandonment of the well will prevent the movement of fluid that causes endangerment to an underground source of drinking water.
(5) Surface casing as required by R 324.408 must be set a minimum of 100 feet below the base of the glacial drift into competent bedrock or 100 feet below all underground sources of drinking water, whichever is deeper, for new Class II wells. To convert a previously drilled well into a Class II well, where existing surface casing is not 100 feet below underground source of drinking water, a demonstration of the combination of casing and cement must be made to show protection of all underground sources of drinking water.
(6) The injection casing must have a minimum of 250 feet of cement immediately above the injection interval. If less than 250 feet of cement exists, remedial cementing must occur at a point as near to the existing cement top as possible, as determined by the supervisor or authorized representative of the supervisor. Injection wells utilized for gas storage are exempt from this subrule.
(7) Class II wells must have injection casing in addition to the surface casing and any additional casing that may be required under R 324.410.

R 324.805 Operational testing requirements Temporary authority to inject.
Rule 805. (1) A permittee of an injection well, except for an injection well utilized for gas storage, shall provide for a pressure test that meets the requirement of subrule (2) of this rule, by a qualified person, to determine the mechanical integrity of the tubing, casing, and packer.
(2) The annulus between the innermost casing and the tubing above the packer shall be tested at least once each 5 years at a pressure of not less than 300 psig. A satisfactory test shall have a bleed off of not more than 5% over a 30-minute period. The difference in pressure between the testing pressure and the tubing pressure shall not be less than 100 psig at the time of the test. Before the test, the permittee shall notify the supervisor or authorized representative of the supervisor of the date and time of the test. The supervisor or authorized representative of the supervisor may request that a certified copy of the test procedure and results be filed with the supervisor by the qualified person making the test.
(3) Before injecting fluid into a newly drilled well or previously existing well newly converted to an injection well to be utilized for gas storage, a permittee of an injection well shall provide for a test of the mechanical integrity of the casing, by a qualified person, utilizing either a pressure test at a bottom hole pressure of not less than the maximum expected operating pressure of the gas storage field or an equivalent test approved by the supervisor. The supervisor may grant a permittee of a well temporary authorization, for a period of not more than 30 days, to inject fluid for the limited purpose of running injectivity tests. Injection wells utilized for gas storage are exempt from this rule.

R 324.806 Monitoring and filing records and reports Testing and authorization to inject before operation of Class II injection wells.
Rule 806. (1) A permittee of a brine disposal injection well shall, on a weekly basis, monitor and record the injection pressure, injection rate, and cumulative volume of the fluid injected. A permittee of
a secondary recovery injection well shall, on a monthly basis, monitor and record the injection pressure, injection rate, and cumulative volume of the fluid injected. A permittee of a secondary recovery injection well may conduct the monitoring and recording, required by this rule, on a field or project basis by manifold monitoring, rather than on an individual well basis, if more than 1 secondary recovery injection well operates with a single manifold, and if the permittee demonstrates that manifold monitoring is comparable to individual well monitoring. A permittee of a brine disposal injection well shall report the data monthly to the supervisor, unless the supervisor requires a lesser frequency, on forms prescribed by the supervisor. A permittee of a secondary recovery injection well shall report the data annually to the supervisor, on forms prescribed by the supervisor. Injection wells utilized for gas storage are exempt from this rule.

(2) A permittee of a injection well shall file an annual monitoring report, on a form provided by the supervisor, summarizing the data of the monitoring required in subrule (1) of this rule. A permittee shall not operate an injection well unless the annual monitoring report is filed by March 1 of each year for the previous calendar year. If the report is not filed by March 1, then a permittee may not continue injection until the required report is submitted and written approval is received from the supervisor or authorized representative of the supervisor.

(3) All records pertaining to an injection well shall be retained by the permittee for a period of 3 years. Before injecting fluid into a new Class II well, a permittee of a well shall provide for a test of the annulus between the innermost casing and the tubing above the packer. The test shall be conducted by a qualified person and the test shall be at a pressure of not less than 300 psig. The difference in pressure between the testing pressure and the tubing pressure shall be not less than 100 psig at the time of the test. A satisfactory test shall have a pressure change of not more than 5% over a period of 30 minutes.

(2) A permittee of a well shall notify the supervisor or authorized representative of the supervisor at least 5 days in advance of the date and time of the test.

(3) Within 5 days of completion of the test, the permittee shall submit, on a form prescribed by the supervisor, a report of each mechanical integrity test to the supervisor or authorized representative of the supervisor. The report shall contain test supporting data, including, but not limited to, gauge calibration data, pressure recordings and charts, tubing size, packer type, and packer depth.

(4) Before the commencement of injection, a permittee shall receive an authorization to inject from the supervisor or authorized representative of the supervisor. Verbal authorization from the supervisor or authorized representative is acceptable to commence injection. Written authorization to inject from the supervisor or authorized representative will be issued within 7 days of verbal authorization.

(5) Injection wells utilized for gas storage are exempt from this rule.

R 324.807 Loss of mechanical integrity. Maximum injection pressure.

Rule 807. (1) A permittee of an injection well shall verbally notify the supervisor or authorized representative of the supervisor of any pressure test failure, significant pressure changes, or other evidence of a leak in an injection well, within 24 hours of the test failure, pressure change, or evidence of a leak. If there is evidence that indicates an injection well is not, or may not be, directing the injected fluid into the permitted injection strata, a permittee of an injection well shall immediately cease injection.

(2) A permittee shall submit written notice of the pressure test failure or other evidence of a leak to the supervisor or authorized representative of the supervisor within 5 days of the occurrence. If injection has ceased pursuant to subrule (1) of this rule, then a permittee shall not resume injection until the permittee
has tested or repaired the well, or both. If the repair requires a change of well status pursuant to R 324.511, then a plan shall be submitted to, and approved by, the supervisor or authorized representative of the supervisor.

During Class II well injection operations, a permittee shall ensure that the surface injection pressure does not exceed a pressure determined by the following equation:

\[ P_m = (f_{pg} - 0.433 \times sg)d \]

where

- \( P_m \) = surface injection pressure
- \( f_{pg} \) = fracture pressure gradient (if unknown, assume 0.800)
- \( sg \) = specific gravity of the injection liquid (if unknown, assume 1.2)
- \( d \) = injection depth in feet (true vertical depth).

The value for \( f_{pg} \) may be determined by an instantaneous shut-in pressure or data derived from step rate testing. Other information to derive \( f_{pg} \) values may be used with approval of the supervisor or authorized representative of the supervisor.

R 324.808  Cessation of injection wells; request for temporary abandonment status Class II well operational testing requirements.

Rule 808. If an injection well ceases operating for the purpose for which it was intended for 1 year, then a permittee shall request temporary abandonment status for the well. If temporary abandonment status is not granted, then the permittee of the injection well shall plug the well.

1) A permittee of a Class II well shall provide for a pressure test that meets the requirement of subrule (2) of this rule, by a qualified person, to determine the mechanical integrity of the tubing, casing, and packer.

2) The annulus between the innermost casing and the tubing above the packer shall be tested at least once each 5 years at a pressure of not less than 300 psig. A satisfactory test shall have a pressure change of not more than 5% over a period of 30 minutes. The difference in pressure between the testing pressure and the tubing pressure shall not be less than 100 psig at the time of the test. At least 5 days before the test, the permittee shall notify the supervisor or authorized representative of the supervisor of the date and time of the test.

3) Within 5 days after the test, the permittee shall, on a form prescribed by the supervisor, submit a report of each mechanical integrity test to the supervisor or authorized representative of the supervisor. The report shall contain supporting data including, but not limited to, gauge calibration data, pressure recordings and charts, tubing size, packer type, and packer depth.

4) For a Class II well that has not been utilized for its intended purpose for a period of greater than 2 years, the permittee shall, prior to resuming injection, demonstrate mechanical integrity for the well and receive authorization to resume injection from the supervisor or authorized representative of the supervisor.

R 324.809  Testing requirements for wells utilized for gas storage.

Rule 809. Before injecting fluid into a newly drilled well or previously existing well newly converted to an injection well to be utilized for gas storage, a permittee of an injection well shall provide for a test of the mechanical integrity of the casing, by a qualified person, utilizing either a pressure test at a bottom hole pressure of not less than the maximum expected operating pressure of the gas storage field or an equivalent test approved by the supervisor. Within 5 days of the test, the permittee shall, on a form prescribed by the supervisor, submit a report of each mechanical integrity test to the supervisor or authorized representative of the supervisor.

R 324.810. Monitoring and filing records and reports.
Rule 810. (1) A permittee of a brine disposal injection well shall, on a weekly basis, monitor and record the annulus pressure, injection pressure, injection rate, and weekly cumulative volume of the fluid injected.

(2) A permittee of a secondary recovery injection well shall, on a monthly basis, monitor and record the annulus pressure, injection pressure, injection rate, and monthly cumulative volume of the fluid injected. A permittee of a secondary recovery injection well may conduct the monitoring and recording, required by this rule, on a field or project basis by manifold monitoring, rather than on an individual well basis, if more than 1 secondary recovery injection well operates with a single manifold, and if the permittee demonstrates that manifold monitoring is comparable to individual well monitoring.

(3) A permittee of a brine disposal injection well shall report the data monthly to the supervisor, unless the supervisor requires a lesser frequency, on forms prescribed by the supervisor.

(4) A permittee of a secondary recovery injection well shall report the data annually to the supervisor, on forms prescribed by the supervisor.

(5) A permittee of a brine disposal injection well shall, in addition to filing a monthly report, file an annual report, on a form provided by the supervisor, summarizing the data of the monitoring required in subrule (1) of this rule. A permittee shall not operate a brine disposal injection well unless the annual monitoring report is filed by March 1 of each year for the previous calendar year. If the report is not filed by March 1, then a permittee shall not continue injection until the required report is submitted and written approval is received from the supervisor or authorized representative of the supervisor.

(6) A permittee of a Class II commercial disposal well shall submit a complete list of sources of disposed fluids on a quarterly basis on a form prescribed by the supervisor within 45 days of the end of each quarter.

(7) A permittee of a Class II commercial disposal well shall submit information on any new source to the supervisor, and shall obtain approval of the source from the supervisor or authorized representative of the supervisor, prior to injection of fluids from that source.

(8) A permittee of a Class II well shall file on a quarterly basis the fluid loss or gain in the tubing-casing annulus on a form prescribed by the supervisor within 45 days of the end of each quarter. Rule authorized wells are exempt from this requirement.

(9) The permittee of a Class II well shall submit an annual chemical analysis of the injectate using same analytes as R 324.802(g)(iv) by March 1 of the following year, or more frequently if there has been a change in sources or characteristics of the injectate.

(10) The permittee shall retain all records pertaining to an Class II injection well for a period of 5 years.

(11) The permittee of any Class II well shall indicate on any submitted report observed noteworthy anomalies or problems identified related to that data. The permittee shall report exceedance of the Maximum Injection Pressure on injection monitoring reports.

R 324.811 Loss of mechanical integrity.

Rule 811. (1) A permittee of a Class II well shall notify the supervisor or authorized representative of the supervisor of any pressure test failure, significant pressure changes, or other evidence of a leak in an injection well, within 24 hours of the pressure test failure, significant pressure change, or other evidence of a leak. If there is evidence that indicates an injection well is not, or may not be, directing the injected fluid into the permitted injection interval, a permittee of an injection well shall immediately cease injection.

(2) A permittee shall submit written notice of the pressure test failure, significant pressure
change, or other evidence of a leak to the supervisor or authorized representative of the supervisor within 5 days of the occurrence, on a form prescribed by the supervisor. If injection has ceased pursuant to subrule (1) of this rule, then a permittee shall not resume injection until the permittee has tested or repaired the well, or both. If the repair requires a change of well status pursuant to R 324.511, or a permit modification, then a plan shall be submitted to, and approved by, the supervisor or authorized representative of the supervisor. The repair or modification plan must demonstrate protection of any underground sources of drinking water.

(3) Before resuming injection, a permittee must receive an authorization to inject. Verbal authorization from the supervisor or authorized representative of the supervisor is acceptable to commence injection. Written authorization to inject from the supervisor or authorized representative will be issued within 7 days of verbal authorization.

R 324.812 Cessation of injection wells; request for temporary abandonment status.
Rule 812. If an injection well ceases operating for the purpose for which it was intended for 1 year, then a permittee shall request temporary abandonment status for the well in writing. The temporary abandonment status may be granted by the supervisor if, after application and justification by the permittee, the supervisor determines that waste will be prevented. When approving the temporary abandonment status or subsequent extensions, the supervisor may require special actions and monitoring by the permittee to ensure the prevention of waste. If temporary abandonment status is not granted, then the permittee of the injection well shall plug the well.

R 324.813 Suspension of Class II well operations due to threat to public health and safety or underground sources of drinking water.
Rule 813. (1) The supervisor or authorized representative of the supervisor may immediately require corrective action at a Class II well, including suspending any or all components of the injection or disposal operations, if the supervisor determines either of the following:
(a) The injection or disposal operations are in violation of the provisions of the act, these rules, permit conditions, instructions, or orders of the supervisor.
(b) The injection or disposal operations threaten the public health and safety or underground sources of drinking water.
(2) A suspension of injection or disposal operations shall be in effect for not more than 5 days or until the operation is in compliance and protection of the public health and safety and underground sources of drinking water is ensured.
(3) Unless the permittee brings the operations into compliance as required pursuant to subrule (1), the supervisor may issue an emergency order to continue the suspension of injection or disposal operations beyond 5 days, and may schedule a hearing under part 12 of these rules. The total duration of the suspension of injection or disposal operations under this provision shall not be more than 21 days, as provided in section 61516 of Part 615, MCL 324.61516.
(4) Unless the permittee brings the operations into compliance as required pursuant to subrule (1) or (2) of this rule, the supervisor may issue an order, administrative consent agreement, or other binding instrument to extend the suspension of injection or disposal operations under this provision beyond 21 days. The order, administrative consent agreement, or other binding instrument shall require corrective actions within specific time limits to achieve compliance and protection of the public health and safety and underground sources of drinking water, and shall remain in force until the operation is brought into compliance.
(5) Authorization to resume injection shall not be given by the supervisor or authorized
R 324.814  Class II primacy transitional requirements for supervisor and owner-operators.  
Rule 814. (1) Transitional requirements for the supervisor include all of the following: 
(a) Upon the date of primacy, the supervisor shall do the following: 
   (i) Accept all Class II well permits, including rule authorized wells, issued under the authority of 
       the USEPA administered underground injection control program. These wells are currently 
       permitted under Part 615, and are deemed to meet the requirements of Part 615. Existing permit 
       terms under Part 615 remain in effect. 
   (ii) Accept records from the USEPA of all Class II wells, including rule authorized wells.  
   (iii) Accept maximum injection pressures established by permits issued by USEPA including 
       maximum injection pressures issued for rule authorized wells, 
   (iv) Accept mechanical integrity test data and test schedules for all existing Class II wells and 
       rule authorized wells.  
(b) Within 30 days following the date of primacy, an owner or operator shall do the following: 
   (i) Transfer pending applications submitted for Class II wells under the USEPA underground 
       injection control program to the Michigan Department of Environmental Quality, Oil, Gas, and 
       Minerals Division, P.O. Box 30256, Lansing, Michigan 48909, for final review and permitting 
       decisions.  
   (ii) File or transfer a conformance bond pursuant to R 324.212.  

R 324.815  Class II permit modifications.  
Rule 815. (1) Modifications to a Class II permit issued pursuant to R 324.206 may be considered 
major modifications and subject to requirements of R 324.802 and R 324.803. Minor 
modifications are not subject to requirements of R 324.802 and R 324.803.  
(2) Minor modifications include activities such as the following: 
(a) Correcting typographical errors. 
(b) Requiring more frequent monitoring or reporting by the permittee. 
(c) Changing an interim compliance date in a schedule of compliance, provided the new date is 
    not more than 120 days after the date specified in the existing permit and does not interfere with 
    attainment of the final compliance date requirement. 
(d) Change in ownership or operational control of a facility where the supervisor determines that 
    no other change in the permit is necessary. 
(e) Changing quantities or types of fluids injected which are within the capacity of the facility as 
    permitted and, in the judgment of the supervisor, would not interfere with the operation of the 
    facility or its ability to meet conditions described in the permit and would not change its 
    classification. 
(f) Changes in construction requirements approved by the supervisor or authorized 
    representative of the supervisor, including remedial cementing or adding perforations to the 
    approved injection interval. 
(g) Amendment of a plugging and abandonment plan when approved by the supervisor or 
    authorized representative of the supervisor.  
(3) The provisions of this rule are effective only upon the date of primacy. 

PART 10. WELL SITES AND SURFACE FACILITIES; PREVENTION OF FIRES, POLLUTION,
AND DANGER TO, OR DESTRUCTION OF, PROPERTY OR LIFE

R 324.1002 Secondary containment requirements and construction standards.

Rule 1002. (1) All wellheads and pump jacks installed after the effective date of these rules and surface facilities constructed for hydrocarbon, gas, brine injection, or brine handling or surface facilities converted to brine injection or handling after November 15, 1989, shall provide for secondary containment pursuant to the requirements of this rule. A permittee of a well shall maintain all existing dikes or fire walls approved before November 15, 1989, in a manner to form a reservoir that has a capacity of 1 1/2 times the capacity of the enclosed tank or tank battery and shall keep the reservoir free of oil, emulsions, tank bottoms, brine, water, vegetation, debris, or any flammable or combustible material. The supervisor or authorized representative may require surface facilities for hydrocarbon, gas, brine injection, or brine handling constructed before November 15, 1989, to be upgraded to meet the requirements of this rule if the facility is substantially reconstructed.

(2) A permittee of a well shall submit secondary containment plans to the supervisor or authorized representative of the supervisor for approval before construction of the facility. The secondary containment plans shall consist of a plot plan of the proposed facility and cross sections showing construction details of the sidewalls and floor or floors of all secondary containment areas, including the proposed overall dimensions of the facility. The supervisor or authorized representative of the supervisor shall approve or disapprove the secondary containment plans within 30 days of receipt of the plans.

(3) A permittee of a well shall comply with all of the following minimum construction standards to meet the secondary containment requirements of this rule:

(a) A permittee shall be required to prepare a hydrogeological investigation of the facility area to establish local background groundwater quality. The hydrogeological investigation shall include all of the following:

(i) Water quality sampling pursuant to the parameters established in R 324.201(2)(k)(vi).

(ii) A determination of the direction of groundwater flow and depth to the groundwater in the uppermost aquifer.

(iii) A chemical analysis showing the concentrations of benzene, ethylbenzene, toluene, and xylene.

(iv) A geologic description of earth materials, both horizontally and vertically, in the immediate vicinity of the proposed facility.

(b) Each facility shall be required to have 1 of the following monitoring systems to detect leakage from hydrocarbon or brine storage secondary containment areas:

(i) A minimum of 1 groundwater monitoring well downgradient which is in close proximity to all hydrocarbon or brine storage secondary containment areas.

(ii) Tertiary containment underlying the secondary containment, which shall be constructed and sealed in a manner to capture any hydrocarbons or brine that may leak or seep through the secondary containment. A layer of permeable material and a monitoring tube shall be placed between the secondary and tertiary containment to allow monitoring to determine the presence of any leakage or seepage through the secondary containment.

(c) A vessel that contains hydrocarbons or brine, or both, shall be elevated and placed on impervious pads or constructed so that any leakage can be easily detected. A vessel that is to be used on-site for 30 days or less shall, at a minimum, be placed on leak-resistant material.

(d) A hydrocarbon and brine storage vessel, including oil heating and treating equipment, shall be located in a secondary containment area and the containment volume shall be in compliance with the following minimum requirements, as applicable:

(i) Containment areas that have only brine storage vessels shall be constructed to contain 150% of the largest storage vessel.
(ii) Containment areas with only hydrocarbon storage vessels shall be constructed pursuant to R 29.2301 et seq.

(iii) Containment areas where both hydrocarbon and brine storage vessels are located shall be in compliance with the volume requirements for the largest storage vessels.

(iv) Precipitation shall be taken into consideration in the design of the secondary containment area.

(e) The sidewalls and floor of the secondary containment and spill containment areas shall be constructed and sealed in a manner to prevent the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater.

(f) A hydrocarbon and brine storage vessel shall not be erected, enclosed, or maintained closer than 200 feet from any drilling or producing well.

(g) Oil heating or treating equipment shall not be erected, enclosed, or maintained closer than 75 feet from any drilling or producing well or oil storage tank or tank battery.

(h) Dikes shall be maintained and the enclosure kept free of all of the following:

(i) Oil.

(ii) Emulsions.

(iii) Tank bottoms.

(iv) Brine.

(v) Water.

(vi) Vegetation.

(vii) Debris.

(viii) Any flammable or combustible material.

(i) The hydrocarbon and brine truck loading and unloading areas located outside of hydrocarbon or brine storage secondary containment areas shall have a spill containment capacity equal to double the volume of the hoses used to connect the truck to the tanks, but not less than a capacity of 5 barrels. The spill containment shall be constructed and sealed in a manner that prevents the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater.

(j) Brine disposal well truck unloading areas and commercial brine truck loading and unloading areas located outside of hydrocarbon or brine storage secondary containment areas shall be constructed and sealed in a manner that prevents the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater. In addition, a ramp shall be constructed to contain the unloading vehicle, its hoses, and connections within the ramp area. The ramp area shall contain a sump and be connected to a secondary containment area so that any spillage drains into the sump and into the secondary containment area. The spill containment ramp and sump shall have a combined capacity of not less than 20 barrels.

(k) Sumps shall be constructed of materials impervious to hydrocarbons and brines and resistant to damage and deterioration during use. Sumps shall be connected to the ramp area and the secondary containment area in a manner that prevents leakage.

(l) Surface facilities for hydrocarbon and brine handling shall be constructed to meet all of the following minimum requirements:

(i) All transfer and injection pumps shall have leak containment.

(ii) All brine and hydrocarbon flow lines to a facility are considered part of that facility and are subject to the following requirements:

(A) All flow lines shall be pressure tested pursuant to the provisions of paragraph (iii)(A),(B),(C),(E), and (G) of this subdivision.

(B) A permittee may elect to not perform the pressure testing of the flow lines, except flow lines that transport brine only, if the permittee performs visual inspections of the entire flow line corridor every 3 months, except when impractical due to snow cover, and reports the results of the inspections to the supervisor or authorized representative of the supervisor annually by January 31 of each year for the
previous calendar year.

(iii) All buried facility piping for the transport of liquids shall be pressure-tested pursuant to the following provisions, as applicable:

(A) Piping made of noncorrodirable or corrosion-protected material shall be pressure-tested every 3 years.

(B) All piping other than piping specified in subparagraph (A) of this paragraph shall be pressure-tested every 12 months.

(C) If buried piping is excavated for repair or relocation, then the disturbed portion shall be pressure-tested immediately pursuant to subparagraphs (D) and (E) of this paragraph.

(D) The pressure test shall be 100% of the normal oil and gas separator operating pressure. The pressure shall be stabilized at 90% of test pressure, at a minimum, and shall hold for a period of 15 minutes.

(E) A permittee shall provide certification to the supervisor or authorized representative of the supervisor, within 30 days of a pressure test, that a pressure test was conducted and the facility piping passed the pressure test. If a facility’s piping does not pass the pressure test, the supervisor or authorized representative of the supervisor shall be notified by the permittee within 48 hours after the test. If the pressure test indicated that the facility’s piping leaked, then the piping shall be repaired and retested before putting the piping back in service. After the repair of the piping, the permittee shall report the repair to the supervisor or authorized representative of the supervisor and provide certification that the piping has been retested and is not leaking.

(F) Single-phase gas lines are not subject to the pressure testing requirements if the lines are protected by a liquid phase trap.

(G) The supervisor may approve or require other pressure testing or leak detection methods in place of the pressure testing required in this paragraph.

(iv) At production or injection well facilities, all piping shall be routed above the ground and kept within the secondary containment area where practical. Piping that cannot be routed above the ground shall have its location marked with posts or with other location-identifying markers approved by the supervisor or authorized representative of the supervisor so that the buried piping can be easily located.

(v) Brine injection wells shall have a working check valve on the flow line at or near the wellhead to avoid backflow.

(vi) All hydrocarbon and brine loading and unloading facility transfer lines that are not in use shall be secured to prevent spillage. A shutoff valve shall be installed at the truck connect point and at the storage vessels. At connect points, impermeable drip containment vessels shall be used and shall be an adequate size to contain all spillage and precipitation to avoid overflow.

(m) Wellheads, flare pits, vents, and flare stacks shall have secondary containment and spill containment areas constructed in a manner to prevent the seepage of hydrocarbons or brine, or both, into the surrounding soils, surface waters, or groundwater. Secondary containment at the wellhead shall be constructed in a manner to capture any leakage of liquid that may occur. In addition, if the wellhead is provided with a pump jack or is converted to a pump jack equipped with a gasoline or diesel-powered engine, then the engine shall also have secondary containment that is sufficient to prevent the seepage of any machine oils or fuels into the surrounding soils, surface waters, or groundwater. Injection wells utilized for gas storage are exempt from this subrule.

(4) Upon completion of the construction of the facility, but before its use, a permittee of a well shall certify, to the supervisor or authorized representative of the supervisor, that the secondary containment area was constructed according to the approved plan. A permittee shall ensure that an approved spill or loss response and remedial action plan is also on file with the supervisor or authorized representative of the supervisor before a facility is used.

(5) Before any significant modification of the secondary containment area occurs, a permittee of a well
shall notify the supervisor or authorized representative of the supervisor and receive approval before making the modification. The supervisor or authorized representative of the supervisor shall approve or deny the request within 10 days of receipt of the request.

(6) A permittee of a well shall perform inspections at the facility at a frequency that is sufficient to ensure that the throughput of fluids in the system does not exceed the primary and secondary containment capacity between inspections. The permittee shall perform at least 1 inspection per week.

(7) The supervisor shall require the installation of an automatic facility shutdown system if the facility has a throughput of liquids in a 24-hour period that exceeds the containment volume of the secondary containment area. The automatic shutdown system shall be designed to prevent liquids from overflowing the secondary containment area. A facility shall be exempt from the requirement of an automatic shutdown system if the facility has staff present 24 hours per day and is equipped with alarm systems on the tank or tanks of the tank battery.

(8) The monitoring system required by R 324.1002(3)(b) shall be kept in a functional condition so that water samples can be collected and water level measurements can be taken every 6 months. The water samples shall be tested for specific conductance as an indicator of dissolved solids, concentrations of chloride, and a chemical analysis pursuant to subrule (3)(a)(iii) of this rule, except the chemical analysis provided by subrule (3)(a)(iii) of this rule shall not be required at monitoring systems at surface facilities where liquid hydrocarbons are not handled. If sampling indicates a possible problem, then additional sampling for the water quality parameters established in R 324.201(2)(j)(vi) may be required. The results of the sample analysis shall be provided to the supervisor or authorized representative of the supervisor as soon as the results are available. If the samples taken by the permittee show substantial increases above background water quality, then the permittee shall, at a minimum, increase monitoring. If the samples confirm that hydrocarbons are present at levels above background, then the permittee shall immediately take remedial action in the form of containment and removal.

(9) A permittee of a well shall provide a right of entry to the facility for monitoring at all times to the supervisor or authorized representative of the supervisor.
NOTICE OF PUBLIC HEARING

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
OIL, GAS, AND MINERALS DIVISION

OIL AND GAS OPERATIONS
Rule Set 2017-017 EQ

NOTICE OF PUBLIC HEARING
WEDNESDAY, FEBRUARY 28, 2018
Lansing Community College West
5708 Cornerstone Drive, Lansing, Michigan 48917
Auditorium, 6:00 – 8:00 p.m.

The Michigan Department of Environmental Quality (DEQ), Oil, Gas, and Minerals Division (OGMD), will hold a public hearing on Wednesday, February 28, 2018 at the Lansing Community College West Campus from 6:00 – 8:00 p.m. in the auditorium. The hearing will be held to receive public comments on proposed changes to the Oil and Gas Operations administrative rules.

The proposed rule set (2017-017 EQ) will amend the current rules to strengthen and clarify requirements for the construction, operation, and monitoring of wells used for injection of fluids associated with oil and gas development; increase single-well bonds to amounts equal to typical well plugging and restoration costs; provide flexibility to extend permit termination dates; and streamline requirements for approving minor changes to well locations prior to drilling.

These rules are promulgated by authority conferred on the Director of the DEQ by Section 61506 of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.61506. These rules will become effective 7 days after filing with the Secretary of State.


Any interested person is invited to attend and present his or her 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 following address by 5:00 p.m. on Friday, March 16, 2018. Copies of the draft rules may also be obtained by mail or electronic transmission at the following address:

Oil, Gas, and Minerals Division  Michigan Department of Environmental Quality
(Attention: Adam Wygant) 525 West Allegan Street  Lansing, Michigan 48909-7756
Phone: 517-284-6823  Fax: 517-241-1595  E-Mail: DEQ-OGMDpubliccomments@michigan.gov

The hearing site is accessible, including handicap parking. People with disabilities requiring additional accommodations to participate in the hearing (such as information in alternative formats) should contact the OGMD at 517-284-6823 at least 5 days prior to the hearing date. Individuals attending the meeting are requested to refrain from using heavily scented personal care products in order to enhance accessibility for everyone. Information at this meeting will be presented by speakers and printed handouts.
These rules take effect immediately upon filing with the Secretary of State unless adopted under section 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.


R 123.1, R 123.3, R 123.4, R 123.5, R 123.20, R 123.21, R 123.22, R 123.23, R 123.24, R 123.30, R 123.31, R 123.32, R 123.33, R 123.34, R 123.35, R 123.36, R 123.37, R 123.38, R 123.40, R 123.43, R 123.44, R 123.51, R 123.52, R 123.53, R 123.54, R 123.55, R 123.56, R 123.61, R 123.62, R 123.63, R 123.64, and R 123.65 of the Michigan Administrative Code are rescinded, as follows:

**PART 1. GENERAL PROVISIONS**

R 123.1 Definitions; A to I Rescinded.

Rule 1. (1) The terms defined in the act have the same meaning when used in these rules.

(2) As used in these rules:

(a) “Act” means 1968 PA 191, MCL 123.1001 to 123.1020 and known as the state boundary commission act.

(b) “Active docket” means an annexation petition or resolution, or incorporation or consolidation petition that is first in line at the time of its filing, or becomes first in line by the removal of a prior blocking petition or court action.

(c) “City incorporation” means the formation of a new city from township territory, 1 or more villages and contiguous township territory, or an incorporated village without change of boundaries.

(d) “Consolidation” means the formation of a new city from 1 of the following:

(i) Two or more cities.

(ii) One or more cities and 1 or more villages.

(iii) One or more cities and 1 or more townships.

(iv) One or more cities and 1 or more villages and 1 or more townships.

(v) One or more cities and 1 or more villages and 1 or more portions of townships.

(e) “Department” means the department of licensing and regulatory affairs.

(f) “Director” means the director of the department or an authorized representative of the director.
(g) “Docket” means a boundary adjustment petition or resolution filed with the commission pursuant to the act and these rules.
(h) “Home rule city act” means, 1909 PA 279, MCL 117.1 to 117.38.
(i) “Home rule village act” means 1909 PA 278, MCL 78.1 to 78.28.
(j) “Inactive docket” means an annexation petition or resolution or incorporation or consolidation petition that must wait in line because of an earlier filed petition describing the same area in part or whole or a petition blocked by legal action.

R 123.3 Definitions; P Rescinded.
Rule 3.  (1) “Person” means an individual, partnership, corporation, association, municipality, or the state.
(2) “Petitioner” means a person who has signed, or circulated and verified, a petition for annexation, incorporation or consolidation or who has voted on and passed an annexation resolution as described in sections 7 and 12 of the act and subsections (2) and (7) of section 9 of the home rule city act and who has filed such petition or resolution with the commission.

R 123.4 Definitions; V, W Rescinded.
Rule 4.  (1) “Village incorporation” means the formation of a new village from township territory.
(2) “Writing” means communication via mail, personal delivery, or electronic communication.

R 123.5 Scope and construction of rules Rescinded.
Rule 5.  These rules govern practice and procedure in all matters before the commission and shall be liberally construed to assure a just, economical and expeditious determination of the issues presented in accordance with the purposes of the act.

Rule 6.  COMMISSION SESSIONS

R 123.20 Adjudicative sessions; call; attendance; quorum; presiding officer Rescinded.
Rule 20.  (1) When necessary, the chairperson of the commission shall call an adjudicative session for the purpose of transacting any business described in R 123.21 under the conditions prescribed in R 123.22 and R 123.23.  When possible, the sessions shall be attended by all state members serving and by the county members appointed to sit on the commission.
(2) A quorum of the commission shall consist of at least 3 members, at least 2 of whom shall be state members.  Regardless of the number of commissioners present, at least 3 concurring votes are required to take any adjudicative action.

R 123.21 Business Rescinded.
Rule 21.  At an adjudicative session, the commission may take 1 or more of the following actions:
(a) Decide on the legal sufficiency of a docket before its call for a public hearing.
(b) Order the date, place, and time for a public hearing.
(c) Take any appropriate action authorized by the act after the public hearing has been held.

R 123.22 Votes Rescinded.
Rule 22.  At an adjudicative session, a concurring vote of at least 3 commissioners is required to take action.  The votes of each commissioner shall be noted in the commission’s record.  The chairperson shall be a voting member of the commission on all matters.  A member of the commission who has a conflict of interest, financial or otherwise, in a docket before the commission shall disclose the interest
before the commission takes action on the docket. The disclosures shall be a matter of record in its
official proceedings.

R 123.23  Record and finality of action
Rescinded.

Rule 23. A record shall be made of all proceedings at an adjudicative session. Commission action is
final when the chairperson signs the findings of fact and conclusions of law, which recommend that the
director reject, deny, approve, or approve with adjusted boundaries, and submits the findings of fact and
conclusions of law to the director. The effective date of the action on the docket is determined by the
order document, which shall be signed by the director. For purposes of judicial review, the action on a
docket is not final until the order document is signed by the director.

R 123.24  Administrative sessions
Rescinded.

Rule 24. (1) When necessary, the chairperson may call the other state members into an administrative
session.
(2) At an administrative session, the state members may take any action to administer the act and to
implement its purposes. No docket before the commission shall be discussed at an administrative
session.
(3) At an administrative session, the vote of 2 state members is required to take a final action.
(4) At the direction of the chairperson, 1 or more state members may conduct administrative business
of the commission that does not require a vote.

PART 3. PREPARATION AND FILING OF PETITIONS OR RESOLUTIONS AND PROCESSING
OF DOCKETS

R 123.30  Forms
Rescinded.

Rule 30. A petition or resolution shall be filed on the forms provided by the department.

R 123.31  Registered electors; certification
Rescinded.

Rule 31. (1) Upon the filing of a petition initiating an annexation by registered electors of the area
proposed to be annexed, the township clerk shall certify to the department the number of registered
electors in the area proposed to be annexed on the date the petition was filed. The township clerk shall
certify whether the signatures are of registered electors in the area proposed to be annexed.
(2) Upon the filing of a petition initiating an incorporation the township or village clerk, whichever is
appropriate, shall certify whether the signatures are of qualified electors and freeholders of the area
proposed to be incorporated.
(3) Upon the filing of a petition initiating a consolidation, the township, village, or city clerk,
whichever is appropriate, shall certify whether the signatures are of qualified electors of the area
proposed to be consolidated.
(4) Upon the filing of a referendum petition asking for an election on an annexation, the city or
township clerk, whichever is appropriate, shall certify to the department the number of registered voters
in the area proposed to be annexed, the remainder of the township and the annexing city, whichever is
appropriate, on the filing date of the petition. The city or township clerk, whichever is appropriate, shall
certify whether the signatures are of registered electors of the city, of the area proposed to be annexed,
or the balance of the township, whichever is appropriate.
(5) Upon the filing of a referendum petition asking for an election on a consolidation or incorporation,
the city or township clerk, whichever is appropriate, shall certify to the department the number of
registered electors in the area proposed to be consolidated or incorporated on the filing date of the petition. The city or township clerk, whichever is appropriate, shall certify whether the signatures are of qualified electors of the area proposed to be incorporated or consolidated.

R 123.32 Filings; notice of filing Rescinded.

Rule 32. (1) An incorporation, consolidation, or annexation petition or annexation resolution shall be filed with the commission. A statement signed by at least 1 signer of the petition or resolution designating the name and address of a natural person to receive notices on behalf of all signers shall accompany the filing or shall be filed separately within 10 business days from the filing. Notice served by the department or any other person on the designated natural person shall be deemed notice to all signers of the petition or voters on the resolution. Notice to an affected city, village, township, or county shall be through its clerk. Upon the filing of a petition or resolution, the department shall make a notation as to the date and time of filing and assign a docket number. Receipt of a petition or resolution shall not be an acknowledgement that it is legally sufficient.

(2) Other items permitted or required to be filed shall be tendered in a legible reproducible form and transmitted to the department.

(3) A person may request, in writing, that the department notify the person in writing when a document has been filed involving a specific docket and the department shall send the notice at the earliest practicable time after the filing of the item.

(4) A person may inspect the file regarding a specific docket at the department during regular business hours, and at the person’s own expense may cause the contents of the file to be duplicated.

R 123.33 Determination of population of area proposed for annexation Rescinded.

Rule 33. (1) When an annexation petition or resolution is filed, the filing population on the filing date shall be determined as soon as practicable after the filing by 1 of the following methods:

(a) By joint agreement of the involved township board and city council and their certification of the population.

(b) By submission of either the township board or the city council, or both, of a certified list of the names and addresses of all residents in the area proposed to be annexed on the date the petition or resolution was filed.

(c) By a door-to-door canvas and interviews with the people within the area proposed to be annexed and certification to the department by the involved units of government.

(2) If both legislative bodies file lists, the commission shall examine the lists and using the guidance of applicable statutes, attorney general opinions, or court decisions make a final population determination.

(3) If only 1 legislative body files a resident list, the department shall supply a copy of the filed list to the non-filing board and grant 30 days for that board to file written challenges to any names contained in the filed list. Upon the filing of a written challenge, the commission shall examine the challenge and using the guidance of applicable statutes, attorney general opinions, or court decisions, the commission shall make a final population determination.

(4) If the department receives only 1 filed certified resident list and that list receives no challenge, it shall stand as the determined population and the commission shall so certify.

R 123.34 Pleadings Rescinded.

Rule 34. In addition to petitions required by sections 7 and 12 of the act, MCL 123.1007 and 123.1012, and petitions and resolutions required by sections 9(2) and (7) of the home rule city act, 1909 PA 279, MCL 117.9(2) and (7), objections to the form or substance of a petition or resolution, answers
to such objections, a memorandum brief on issues of fact or law, and such other pleadings as the
commission may allow may be filed up to 7 days prior to the commission’s meeting on the docket.

R 123.35 Determination of days to public hearing Rescinded.
   - Rule 35. (1) For purposes of determining the minimum 60 days and maximum 220 days from filing of
     an active docket to the holding of the public hearing, the days shall be counted from the date of the
     filing.
     (2) The 60- and 220-day public hearing requirement shall not apply to inactive dockets until such time
     that they may become active dockets.

R 123.36 Rejected petitions or resolutions Rescinded.
   - Rule 36. (1) The department shall reject an annexation petition or resolution for territory that includes
     all or any part of the territory which was described in any annexation petition or resolution filed within
     the preceding 2 years and that was denied by the department or was defeated in an election.
     (2) The department shall reject a consolidation petition if a proposition to consolidate the identical
     municipalities had been voted on within the 2 years immediately preceding the filing of the later
     petition.
     (3) Upon this determination, the department shall return the petition or resolution to the petitioner and
     shall certify the reasons for its rejection.
     (4) The 2-year period shall start on the day the prior annexation petition or resolution was filed.
     (5) The 2-year period shall not apply to incorporation, consolidation, or annexation petitions or
     resolutions that were rejected for not being legally sufficient.

R 123.37 Petitions and resolutions; contents Rescinded.
   - Rule 37. (1) A petition for incorporation, consolidation, or annexation or an annexation resolution
     shall identify graphically on a map, labeled “part I”, and by an accurate written legal description, labeled
     “part III”, the boundaries of the lands that are proposed to be incorporated, consolidated, or annexed.
     (2) A “part I” map of any incorporation, consolidation, or annexation petitions or annexation
     resolutions shall consist of 1 or more sheets of a map clearly showing the territory proposed to be
     incorporated, consolidated, or annexed. The “part I” map shall be constructed by the petitioner so its
     minimum size is 8 ½” x 11” and maximum size is 36” x 42”. The “part I” map shall be of sufficient
     scale and clarity as to be unambiguous to laypersons with respect to the inclusion or exclusion of their
     own property and shall include all of the following:
     (a) All section lines, quarter section lines, and government corners that affect the boundary of the area
     proposed for annexation, incorporation, or consolidation.
     (b) All current and proposed municipal boundary lines in the area of and in proximity to the area
     proposed for annexation, incorporation, or consolidation, including labeling of all adjacent
     governmental units.
     (c) A north arrow.
     (d) A map scale that is both stated and represented by a graphical bar.
     (e) All roads, streets, and highways that relate to the boundary of the area proposed for annexation,
     incorporation, or consolidation.
     (f) All major geographic features that relate to the boundary of the area proposed for annexation,
     incorporation, or consolidation.
     (g) Labeled parcels of common ownership along the perimeter of the area proposed for annexation,
     incorporation, or consolidation, to avoid splitting parcels under common ownership into separate
     municipalities.
(h) If there is more than 1 sheet in the “part I” map, there shall be a master sheet that shows how the individual sheets relate to the whole. The master sheet shall clearly show the location of all major features including major roads, section lines, existing local government boundaries, and major geographical features.

(3) For any incorporation, consolidation or annexation petitions or annexation resolutions, the existing municipal boundary lines shown on the “part I” map shall be substantially consistent with the municipal boundary histories on file with the secretary of state’s office of the great seal at the time of the filing.

(4) For an annexation petition or resolution, the area proposed for annexation shall be contiguous to the annexing city as referenced by the municipal boundary histories on file with the secretary of state's office of the great seal at the time of the filing.

(5) Parts II and IV through VI shall be prepared on forms furnished by the department.

(6) “Part VII” shall contain a map that shows the relationship of the area proposed for incorporation, consolidation, or annexation to the balance of the involved and adjacent units of government. The map may be of a size that the petitioner chooses and shall not be considered in the determination of legal sufficiency. For the purpose of determining legal sufficiency, a “part I” map and “part III” legal description shall be part of the petition or resolution and shall be substantially accurate and consistent with each other. The commission may order that all or part of the boundaries of the area be reviewed by a professional land surveyor to verify the accuracy and consistency of the “part I” map, and “part III” legal description.

(7) In a petition submitted to the public for signature, the “part I” map shall accompany the signature sheets. Upon discovery of a disparity between various public or private records as to land ownership or the location of local government boundaries, the department shall issue a report on the disparity and notify the commission, the petitioners, and the affected units of government prior to the commission’s meeting on the legal sufficiency.

(8) When documents that are part of the petition or resolution contain reference to additional recorded data or documents that are found to be necessary to determine the accuracy of the petition, resolution, map, or legal description, and copies of these recorded documents are not a part of the docket, the department may request the petitioner to supply copies of these documents by a specified date.

(9) An annexation petition initiated by a firm, corporation, or other formal organization shall contain copies of resolutions, meeting minutes, correspondence, transmittal letters, or other documents that are necessary to show that the petitioner was authorized to file on behalf of the organization.

(10) An annexation resolution initiated by a city shall contain copies of all documents necessary to show that the city council approved the annexation resolution before filing with the department.

(11) Upon filing, each petition or resolution shall stand or fall on its own content. Before the legal sufficiency meeting, the department may provide notice of obvious scrivener’s errors in the docket and allow the petitioner to correct these errors, except for errors on a “part-I” map that accompanied the petition signature sheets. The department shall retain a copy of the docket in its original state for docket proceedings. Modifications, corrections, deletions, or additions to a petition shall not be made except those authorized in this subrule.

R 123.38 Withdrawal of petition or resolution Rescinded.

Rule 38. (1) An annexation resolution filed pursuant to section 9(7)(a) of the home rule city act, 1909 PA 279, MCL 117.9(7)(a), or an annexation petition filed pursuant to section 9(7)(b) of the home rule city act, MCL 117.9(7)(b), may be withdrawn by the legislative body or persons, firms, corporations, or government agencies that have initiated the petition or resolution without commission action through the filing of a written request and by official action, if desired by the petitioner. When an annexation
resolution or petition is withdrawn, the docket proceedings shall terminate and another petition or resolution shall be filed for action on a future docket.

(2) The department may give notice to a petitioner referenced in subrule (1) of this rule that the petition or resolution does not appear to meet the requirements of the act, the home rule city act, the home rule village act, or these rules.

PART 4. COMMISSION PROCEDURES

R 123.40 Petitions and resolutions filed with the commission; notice Rescinded.

Rule 40. Within 10 days after the filing of an incorporation or consolidation petition or annexation petition or resolution, under the commission’s jurisdiction, the department shall complete and transmit to the involved local governmental clerk, the affected county clerk, and the secretary of state a notice of filing with the commission.

R 123.43 Legal sufficiency meeting Rescinded.

Rule 43. Before the public hearing, the commission shall examine the legal sufficiency of the docket at an adjudicative session. The commission shall determine legal sufficiency of a docket pursuant to the act and these rules.

R 123.44 Annexation, consolidation, and incorporation; criteria information; methods of gathering Rescinded.

Rule 44. After declaring the legal sufficiency of a docket for annexation, incorporation, or consolidation, the commission shall obtain the criteria data or information prescribed in section 9 of the act, MCL 123.1009, by using all or any combination of the following methods:

(a) Instructing the petitioner and the involved units of government to complete and return within 30 days of receiving from the department a criteria data or information evaluation questionnaire.

(b) Directing staff or other personnel to gather the necessary data or information, which shall be made available to the department at a specified date before the public hearing date. In addition, the department may direct that the raw data or information be analyzed, organized, condensed, summarized, and presented to the commission in a compacted form. All raw data shall be maintained as part of the docket.

(c) Directing staff to send written questions or requests for specific information to the petitioner, involved units of government, affected or interested state and federal agencies, affected planning commissions or other interested persons or governmental units to be filed in writing with the department by a specified date.

PART 5. COMMISSION PUBLIC HEARINGS

R 123.51 Place; notices; adjournment Rescinded.

Rule 51. (1) A public hearing shall be held in a public place located in or near the territory to be included within a proposed municipal boundary adjustment. Notice shall be given as prescribed in section 8 of the act, MCL 123.1008.

(2) The department shall notify the clerks of the involved units of government and the county clerks of the involved counties under the act and these rules.
(3) If the municipal boundary adjustment is an annexation matter, the department shall notify the property owners located within, and within 300 feet of, the proposed annexation pursuant to the home rule city act and these rules.

(4) When the commission is considering revising the boundaries from those proposed in the petition or resolution, the department shall provide notice as required by the act, the home rule city act, and the home rule village act.

R 123.52 Commissioners present; presiding officers; scope Rescinded.

Rule 52. (1) Whenever possible, a public hearing as required by section 8 of the act, MCL 123.1008, shall be attended by all state members and the 2 county members. A member not in attendance at a public hearing shall review the public hearing record and so signify to the chairperson to be eligible to vote at subsequent adjudicative sessions. The chairperson or designee shall preside.

(2) The commission shall receive at public hearing information concerning the reasonableness of the proposed incorporation, consolidation, or annexation based on the criteria listed in section 9 of the act, MCL 123.1009. Information presented in oral or exhibit form or comment or analysis of information presented shall be germane and shall become part of the record.

(3) A person may present information at public hearing or make a statement about the effect of the proposed action upon personal interest.

R 123.53 Presenters Rescinded.

Rule 53. (1) An interested party may speak directly, may be represented by counsel, and may present 1 or more spokespersons and supporting witnesses necessary to present relevant information if the presentation is limited to a reasonable time at the discretion of the chairperson or his designee.

(2) A person shall not address the commission unless recognized by the chairperson. Upon recognition, the chairperson may state the amount of time allotted to the person recognized.

(3) A person may ask to be heard at a public hearing without having filed prior notice of appearance.

(4) The chairperson, or the chairperson’s designee, may waive or modify the terms of this rule if necessary for a just disposition of a pending matter or to avoid hardship, and may make such waiver or modification as it deems necessary or appropriate to implement the purpose of the act.

R 123.54 Official notice Rescinded.

Rule 54. The commission may take notice of facts and of a general, technical, or scientific nature within its specialized knowledge. The commission may use its experience, technical competence, and general and specialized knowledge in the evaluation of the information presented. This rule does not permit the commission to take notice of information contrary to any statute or other law.

R 123.55 Participation by department staff Rescinded.

Rule 55. (1) The department’s staff may appear in an adjudicative or administrative session or a public hearing and present information as to the results of its investigations, field studies, inspection and other technical investigations and studies. The department’s staff may file reports, make statements of positions or otherwise make recommendations on the record which it believes proper and lawful, based on the information presented and the department staff’s knowledge. Department staff presentations may include information by members of other governmental agencies either specific to the pending docket or providing relevant background information.

R 123.56 Additional information Rescinded.
Rule 56. (1) During the 30 days immediately following a public hearing, the commission may receive additional or supplemental public hearing information including exhibits, written comments, statements, arguments, briefs, replies, or any other information that properly could have been presented at the public hearing, including information derived from the specialized knowledge of the commission or department staff. When practicable, such information shall be in a format suitable for reproduction.

(2) A person wishing to be notified of the filing of additional information shall notify the department in writing. The department shall keep a list of the interested parties and notify each person on the list of all filings.

(3) All parties shall have 7 business days, from the sending of the notice of the filing in subrule (2) of this rule, to respond to any additional information presented under subrule (1) of this rule.

PART 6. POST HEARING PROCEDURES

R 123.61 Disposition resolution; referendum Rescinded.

Rule 61. (1) After a public hearing and consideration of the criteria in section 9 of the act, MCL 123.1009, the commission shall present findings of fact and conclusions of law at an adjudicative session. The commission shall by resolution recommend the director dispose of the docket by doing 1 of the following:

(a) Denying the docket.

(b) Approving the docket.

(c) Revising the boundaries as proposed in the petition or resolution and approve the docket with the revised boundaries.

(2) When the area approved for annexation contains a population of 100 or less, the director’s order shall contain the effective date of the annexation.

(3) When the area approved for annexation contains a population of more than 100, the director’s order becomes effective pursuant to the home rule city act unless a valid referendum election request petition is filed.

(4) When the area is approved for consolidation or incorporation, the director’s order becomes effective pursuant to the act unless a valid referendum election request petition is filed.

R 123.62 Referendum election petition Rescinded.

Rule 62. (1) If a valid referendum petition is filed pursuant to the act or the home rule city act to ask for an election on the proposed annexation, consolidation or incorporation, the commission shall adopt a resolution recommending that the director dispose of the request by ordering the question be placed on the ballot at some future date, or by setting the date of the special election.

(2) If an annexation referendum election is held and each area affected voting separately on the question approves the annexation by a majority vote, the commission shall adopt a resolution recommending the effective date of the annexation for the director’s approval.

(3) If a referendum election is held on the question of incorporation and a majority of the electorate in the area proposed for incorporation approves, by majority vote, the incorporation, the director’s order becomes final.

R 123.63 Lists of consolidation charter commission candidates Rescinded.

Rule 63. Within 5 days after the deadline for filing nominating petitions for candidates for consolidation charter commission, the village, township, or city clerks shall transmit to the county clerk and the department a certified list of charter commission candidates.
R 123.64 Notice to charter commissioners Rescinded.
   Rule 64. Immediately after being notified of the canvass of a vote for charter commissioners, the
department shall notify the elected charter commissioners in writing that they shall meet within 10 days
and furnish a certificate to be completed and returned by the charter commission certifying that it has
met within the required 10 days.

R 123.65 Notice of final action Rescinded.
   Rule 65. (1) Upon the completion of all its actions on an active city or village annexation petition or
resolution, a city or village council or township board shall notify the department in writing.
   (2) Upon the completion of all action on an active incorporation or consolidation docket or a home
rule city annexation docket under the jurisdiction of the commission, the department shall notify in
writing the clerks of the involved local governments, the county clerk, and secretary of state that action
on the docket is closed.
NOTICE OF PUBLIC HEARING

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
NOTICE OF PUBLIC HEARING

State Boundary Commission Rules (ORR# 2017-081 LR)

The Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, will hold a public hearing on the rescission of the State Boundary Commission Rules. The public hearing will be held on Tuesday, February 27, 2018, at 9:00 a.m. in the Ottawa Building, Conference Room 3, 611 W. Ottawa Street, Lansing, MI 48933. The rescission of the State Boundary Commission rules is proposed to take immediate effect after filing with the Secretary of State.


The proposed rules will be published in the February 15, 2018, Michigan Register. You may download a free copy of the proposed amendments by visiting the Bureau’s website at www.michigan.gov/bcc. The amendments are located under “What’s New” on the front page of the website.

Oral or written comments may be presented in person at the hearing on February 27, 2018, or submitted in writing by mail, email, or facsimile no later than 5:00 p.m., February 27, 2018, to the address stated below. If your presentation at the public hearing is in written form, please provide a copy to the Rules Specialist, at the conclusion of your testimony at the hearing.

Department of Licensing and Regulatory Affairs
Bureau of Construction Codes
Administrative Services Division
P.O. Box 30254
Lansing, MI 48909
Telephone (517) 241-6312
Facsimile (517) 241-9570
matsumotos@michigan.gov

The meeting site and parking are 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 Sara Leiby at (517) 241-9303 (voice) at least 14 days prior to the hearing. LARA is an equal opportunity employer/program.
MCL 24.208 states in part:

“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.”
EXECUTIVE ORDERS

EXECUTIVE ORDER
No. 2018 - 2

CREATION OF THE
MICHIGAN CONSORTIUM OF ADVANCED NETWORKS

EXECUTIVE OFFICE OF THE GOVERNOR

WHEREAS, Section 1 of Article V of the Michigan Constitution of 1963 vests the executive power of the state of Michigan in the Governor; and

WHEREAS, Section 4 of Article V of the Michigan Constitution of 1963 authorizes the establishment of temporary commissions or agencies for special purposes; and

WHEREAS, Michigan must ensure that secure, reliable, and affordable broadband services are available to all residents across our state; and

WHEREAS, high-speed broadband service is essential for the advancement of prosperous and safe communities, responsive and data-driven government services, research and innovation, and economic development; and

WHEREAS, Michigan is a global leader for mobility innovation and will lead the country in 21st century infrastructure systems and connectedness; and

WHEREAS, the establishment of the Michigan Consortium of Advanced Networks will enable coordination and identify opportunities for stakeholders to address current mobile and fixed broadband access and adoption issues through the creation of a roadmap for a 21st century connected Michigan.

NOW, THEREFORE, I, Richard D. Snyder, Governor of the state of Michigan, by virtue of the power and authority vested in the Governor by the Michigan Constitution of 1963 and Michigan law, order the following:

I. CREATION OF THE MICHIGAN CONSORTIUM OF ADVANCED NETWORKS

A. The Michigan Consortium of Advanced Networks (the “Consortium”) is created as a temporary commission pursuant to Article V, Section 4 of the Michigan Constitution of 1963 and shall serve as an advisory body within the Executive Office of the Governor.

B. The Governor shall appoint five members to the Consortium, serving at the pleasure of the Governor.
C. The Governor shall also appoint two individuals nominated by the Michigan Legislature, as follows:

1. One individual nominated by the Speaker of the House; and

2. One individual nominated by the Senate Majority Leader.

D. The Consortium shall include individuals representing varied interests, such as government, the private sector, broadband providers and stakeholders.

E. In addition to the members appointed by the Governor, the following six (6) members shall serve as ex officio, non-voting members:

1. The Director of the Department of Technology, Management and Budget, or his or her designee; and

2. The Director of the Michigan State Police, or his or her designee; and

3. The Director of the Michigan Department of Agriculture and Rural Development, or his or her designee; and

4. The Chief Executive Officer of the Michigan Economic Development Corporation, or his or her designee; and

5. The Chairman of the Michigan Public Service Commission, or his or her designee; and

6. The Director of the Department of Transportation, or his or her designee.

F. A vacancy on the Consortium shall be filled in the same manner as the original appointment.

II. CHARGE TO THE CONSORTIUM

A. The Consortium shall act in an advisory capacity to the Governor, and the state of Michigan, and shall, by August 1, 2018, solidify a vision for a connected Michigan, along with a roadmap to guide the state’s goal of ubiquitous broadband access.

B. The roadmap should identify gaps in service coverage and capacity, current efforts underway to address connectivity issues, and key strategies and recommendations for the state and private sector to pursue over the coming years to achieve ubiquitous connectivity.

D. Once the roadmap is developed, the Consortium should identify and help with implementation of first-year priorities, given adequate resource provision.

III. OPERATIONS OF THE CONSORTIUM

A. The Consortium shall be staffed by personnel from the Executive Office and otherwise assisted by state departments and agencies as directed by the Governor.

B. The Governor shall designate the Chairperson of the Consortium or the Co-Chairpersons from non-voting members.

C. The Consortium may select from among its voting members a Vice Chairperson.

D. The Consortium shall meet at the call of the Chairperson, and as provided in procedures, if adopted, by the Consortium.

E. A majority of the voting members of the Consortium serving constitutes a quorum for the transaction of the Consortium’s business. The Consortium shall act in making its recommendations by a majority vote of its serving members.

F. The Consortium shall adopt procedures consistent with Michigan law and this Order governing its organization and operations, and may establish committees and request public participation on advisory panels as the Consortium deems necessary. The Consortium may adopt, reject, or modify any recommendations proposed by committees or advisory panels.

G. The Consortium may, as appropriate, make inquiries, studies, hold hearings, and receive comments from the public. The Consortium may consult with outside experts to perform its duties, including, but not limited to, experts in the private sector, academia, government agencies, and the nonprofit sector.

H. Members of the Consortium shall serve without compensation but may receive reimbursement for necessary travel and expenses according to relevant statutes and the rules and procedures, subject to available funding.

I. In accordance with applicable state contracting and procurement procedures, the Consortium may make or enter into contracts necessary or incidental to the exercise of the powers of the Consortium and the performance of its duties, including the hiring or retention of contractors,
consultants, or agents, as the Chairperson deems advisable and necessary with input from the Consortium.

J. The Consortium may accept donations of labor, services, or other things of value from any public or private agency or person. Any donations shall be expended in accordance with applicable laws, rules, and procedures.

K. The Consortium shall be terminated and cease operations one year after the issuance of this Order.

IV. MISCELLANEOUS

A. All departments, committees, members, or officers of this state or of any political subdivision of this state may give to the Consortium, or to any member or representative of the Consortium, any necessary assistance required by the Consortium or any member or representative of the Consortium, in the performance of the duties of the Consortium so far as is compatible with its, his, or her duties.

B. The invalidity of any portion of this Order shall not affect the validity of the remainder of the Order, which may be given effect without any invalid portion. Any portion of this Order found invalid by a court or other entity with proper jurisdiction shall be severable from the remaining portions of this Order.

This Order shall become effective upon filing.

Given under my hand and the Great Seal of the state of Michigan this ________ day of __________________, in the Year of our Lord Two Thousand Eighteen.

________________________________
RICHARD D. SNYDER
GOVERNOR

BY THE GOVERNOR:

________________________________
SECRETARY OF STATE
MICHIGAN ADMINISTRATIVE CODE TABLE
(2017 SESSION)

MCL 24.208 states in part:

“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:

*   *   *

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

The following table cites administrative rules promulgated during the year 2017, and indicates the effect of these rules on the Michigan Administrative Code (1979 ed.).
### MICHIGAN ADMINISTRATIVE CODE TABLE
#### (2017 RULE FILINGS)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>325.2651</td>
<td>*</td>
<td>2</td>
<td>408.10203</td>
<td>A</td>
<td>2</td>
<td>408.10331</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2652</td>
<td>*</td>
<td>2</td>
<td>408.10204</td>
<td>A</td>
<td>2</td>
<td>408.10333</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2653</td>
<td>*</td>
<td>2</td>
<td>408.10205</td>
<td>*</td>
<td>2</td>
<td>408.10335</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2654</td>
<td>*</td>
<td>2</td>
<td>408.10206</td>
<td>R</td>
<td>2</td>
<td>408.10341</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2655</td>
<td>*</td>
<td>2</td>
<td>408.10207</td>
<td>R</td>
<td>2</td>
<td>408.10342</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2656</td>
<td>R</td>
<td>2</td>
<td>408.10208</td>
<td>R</td>
<td>2</td>
<td>408.10345</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>325.2657</td>
<td>R</td>
<td>2</td>
<td>408.10211</td>
<td>R</td>
<td>2</td>
<td>408.10351</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>338.201</td>
<td>A</td>
<td>2</td>
<td>408.10213</td>
<td>R</td>
<td>2</td>
<td>408.10352</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>338.202</td>
<td>A</td>
<td>2</td>
<td>408.10215</td>
<td>R</td>
<td>2</td>
<td>408.10353</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>338.203</td>
<td>A</td>
<td>2</td>
<td>408.10217</td>
<td>R</td>
<td>2</td>
<td>408.10354</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>338.204</td>
<td>A</td>
<td>2</td>
<td>408.10219</td>
<td>R</td>
<td>2</td>
<td>408.10355</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.241</td>
<td>*</td>
<td>2</td>
<td>408.10220</td>
<td>R</td>
<td>2</td>
<td>408.10357</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.242</td>
<td>*</td>
<td>2</td>
<td>408.10221</td>
<td>R</td>
<td>2</td>
<td>408.10361</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1707</td>
<td>*</td>
<td>2</td>
<td>408.10223</td>
<td>R</td>
<td>2</td>
<td>408.10365</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1719</td>
<td>R</td>
<td>2</td>
<td>408.10227</td>
<td>R</td>
<td>2</td>
<td>408.10371</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1723c</td>
<td>*</td>
<td>2</td>
<td>408.10228</td>
<td>R</td>
<td>2</td>
<td>408.10372</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1724d</td>
<td>*</td>
<td>2</td>
<td>408.10230</td>
<td>R</td>
<td>2</td>
<td>408.10401</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1742</td>
<td>*</td>
<td>2</td>
<td>408.10231</td>
<td>R</td>
<td>2</td>
<td>408.10403</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>340.1799c</td>
<td>*</td>
<td>2</td>
<td>408.10232</td>
<td>R</td>
<td>2</td>
<td>408.10404</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10001</td>
<td>*</td>
<td>2</td>
<td>408.10233</td>
<td>R</td>
<td>2</td>
<td>408.10406</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10002</td>
<td>A</td>
<td>2</td>
<td>408.10235</td>
<td>R</td>
<td>2</td>
<td>408.10407</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10003</td>
<td>*</td>
<td>2</td>
<td>408.10236</td>
<td>R</td>
<td>2</td>
<td>408.10408</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10004</td>
<td>*</td>
<td>2</td>
<td>408.10237</td>
<td>R</td>
<td>2</td>
<td>408.10421</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10005</td>
<td>*</td>
<td>2</td>
<td>408.10239</td>
<td>R</td>
<td>2</td>
<td>408.10422</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10011</td>
<td>*</td>
<td>2</td>
<td>408.10240</td>
<td>R</td>
<td>2</td>
<td>408.10427</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10012</td>
<td>*</td>
<td>2</td>
<td>408.10241</td>
<td>R</td>
<td>2</td>
<td>408.10428</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10013</td>
<td>A</td>
<td>2</td>
<td>408.10301</td>
<td>R</td>
<td>2</td>
<td>408.10431</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10015</td>
<td>*</td>
<td>2</td>
<td>408.10305</td>
<td>R</td>
<td>2</td>
<td>408.10432</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10016</td>
<td>R</td>
<td>2</td>
<td>408.10306</td>
<td>R</td>
<td>2</td>
<td>408.10433</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10017</td>
<td>*</td>
<td>2</td>
<td>408.10307</td>
<td>R</td>
<td>2</td>
<td>408.10441</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10021</td>
<td>R</td>
<td>2</td>
<td>408.10308</td>
<td>R</td>
<td>2</td>
<td>408.10442</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10022</td>
<td>R</td>
<td>2</td>
<td>408.10310</td>
<td>R</td>
<td>2</td>
<td>408.10443</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10026</td>
<td>*</td>
<td>2</td>
<td>408.10311</td>
<td>R</td>
<td>2</td>
<td>408.10445</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10031</td>
<td>*</td>
<td>2</td>
<td>408.10321</td>
<td>R</td>
<td>2</td>
<td>408.10446</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10034</td>
<td>*</td>
<td>2</td>
<td>408.10323</td>
<td>R</td>
<td>2</td>
<td>408.10447</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10036</td>
<td>*</td>
<td>2</td>
<td>408.10324</td>
<td>R</td>
<td>2</td>
<td>408.10451</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10098</td>
<td>R</td>
<td>2</td>
<td>408.10325</td>
<td>R</td>
<td>2</td>
<td>408.10452</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10201</td>
<td>*</td>
<td>2</td>
<td>408.10326</td>
<td>R</td>
<td>2</td>
<td>408.10454</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>408.10202</td>
<td>A</td>
<td>2</td>
<td>408.10328</td>
<td>R</td>
<td>2</td>
<td>408.10456</td>
<td>R</td>
<td>2</td>
</tr>
</tbody>
</table>

(* Amendment to Rule, **A** Added Rule, **N** New Rule, **R** Rescinded Rule)
<table>
<thead>
<tr>
<th>R Number</th>
<th>Action</th>
<th>2018 MR Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>474.101</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>474.102</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>474.103</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>474.104</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>474.105</td>
<td>R</td>
<td>2</td>
</tr>
<tr>
<td>474.106</td>
<td>R</td>
<td>2</td>
</tr>
</tbody>
</table>

(* Amendment to Rule, A Added Rule, N New Rule, R Rescinded Rule)
CUMULATIVE INDEX

A

ATTORNEY GENERAL, DEPARTMENT OF
Opinions
Application of Minimum Wage Laws to Agricultural Employees
   OAG Opinion No. 7301 (2018-1)

E

Executive Order
No. 1 -2018 (2018-1)
No. 2 -2018 (2018-2)

EDUCATION, DEPARTMENT OF
Fees for Transporting Pupils to or from Nonmandatory and Noncredited Events (2018-2)
   Special Education Programs and Services (2018-2)

ENVIRONMENTAL QUALITY, DEPARTMENT OF
Oil and Gas Operations (2018-2*)
   Supplying Water to the Public (2018-2*)

H

HEALTH AND HUMAN SERVICES, DEPARTMENT OF
Correction:
   Birth Defect Reporting (2018-1)

L

LICENSING AND REGULATORY AFFAIRS, DEPARTMENT OF
A standing Order for Dispensing Opioid Antagonists (2018-2)
   Part 2. Walking Working Surfaces GI (2018-2)
Part 3. Fixed Ladders GI (2018-2)
Part 4. Portable Ladders GI (2018-2)
Occupational Code Renewals (2018-1*)
Real Estate Appraisers - General Rules (2018-1*)
State Boundary Commission (2018-2*)

STATE POLICE, DEPARTMENT OF
Test for Breath Alcohol (2018-2)

TRANSPORTATION, DEPARTMENT OF
Motor Bus Transportation (2018-2)
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 Office of Regulatory Reform 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.”
<table>
<thead>
<tr>
<th>PA No.</th>
<th>ENROLLED</th>
<th>I.E.*</th>
<th>Governor Approved</th>
<th>Filed Date</th>
<th>Effective Date</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0095</td>
<td>Yes/No</td>
<td>No</td>
<td>1/18</td>
<td>1/18/18</td>
<td>Use tax; collections; use tax on the difference; accelerate phase-in. **** Governor Veto of 7/25/17 overridden and approved by 2/3 vote on 1/17/18 **** (Sen. D. Robertson)</td>
</tr>
<tr>
<td>2</td>
<td>0094</td>
<td>Yes/No</td>
<td>No</td>
<td>1/18</td>
<td>1/18/18</td>
<td>Sales tax; collections; use tax on the difference; accelerate phase-in. **** Governor Veto of 7/25/17 overridden and approved by 2/3 vote on 1/17/18 **** (Sen. D. Hildenbrand)</td>
</tr>
<tr>
<td>3</td>
<td>4533</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>1/26/18</td>
<td>Natural resources; hunting; nonresident 3-day small game license; establish. (Rep. C. VanderWall)</td>
</tr>
<tr>
<td>4</td>
<td>4957</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>1/26/18</td>
<td>Natural resources; hunting; mentored youth hunting license; allow individual to purchase additional licenses. (Rep. G. Howell)</td>
</tr>
<tr>
<td>5</td>
<td>0207</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>4/26/18</td>
<td>Law enforcement; other; arrest power for state property security officers; modify. (Sen. M. Green)</td>
</tr>
<tr>
<td>6</td>
<td>0525</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>1/26/18</td>
<td>Courts; reorganization; reorganization of courts and number of judgeships; modify. (Sen. R. Jones)</td>
</tr>
<tr>
<td>7</td>
<td>0702</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>1/26/18</td>
<td>Local government; other; educational instruction access act; clarify deed restriction language. (Sen. P. Pavlov)</td>
</tr>
<tr>
<td>8</td>
<td>4849</td>
<td>Yes/No</td>
<td>1/26</td>
<td>1/26</td>
<td>4/26/18</td>
<td>Cemeteries and funerals; other; money held by a county for care and preservation of cemetery lots; require to be presumed abandoned under certain circumstances. (Rep. J. Alexander)</td>
</tr>
</tbody>
</table>

* - 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.
++ - Pocket veto.
# - Tie bar.
<table>
<thead>
<tr>
<th>PA No.</th>
<th>HB</th>
<th>SB</th>
<th>I.E.*</th>
<th>Governor Approved</th>
<th>Filed Date</th>
<th>Effective Date</th>
<th>SUBJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>4940</td>
<td></td>
<td>Yes</td>
<td>1/26</td>
<td>1/26</td>
<td>4/26/18</td>
<td>Agriculture; associations and commissions; dry bean act; modify apportionment of districts and create a member at large. (Rep. E. Canfield)</td>
</tr>
<tr>
<td>10</td>
<td>5144</td>
<td></td>
<td>Yes</td>
<td>1/26</td>
<td>1/26</td>
<td>1/26/18</td>
<td>Marihuana; facilities; requirements for the issuance of a state operating license; revise, and provide for other general amendments. (Rep. K. Kesto)</td>
</tr>
</tbody>
</table>

* - 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.
++ - Pocket veto.
# - Tie bar.