Michigan Register

Issue No. 15– 2002 (Published September 1, 2002)

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. 15 — 2002
(This issue, published September 1, 2002, contains
documents filed from August 1, 2002 to August 15, 2002)

Compiled and Published by the
Office of Regulatory Reform

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Printed in the United States of America

Michigan Register (ISSN 0892-3124). Published twice per month, with a cumulative index, by the Office of Regulatory Reform, pursuant to §24.208 of the Michigan Compiled Laws. Subscription $110 per year, postpaid to points in the U.S. First class postage paid at Lansing, Michigan. Direct all mail concerning subscriptions to Office of Regulatory Reform, Executive Office, George W. Romney Building, 111 S. Capitol Avenue, Lansing, MI 48933. Telephone: 517-373-0526.

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John Engler, Governor

Dick Posthumus, 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.

MCL 24.208 states:

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(1) after final approval by the certificate of need commission or the statewide health coordinating council under section 22215 or 22217 of the public health code, 1978 PA 368, MCL 333.22215 and 333.22217.

(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 transmit a copy of the proposed rules and notice of public hearing to the office of regulatory reform for publication in the Michigan register.

MCL 4.1203 states:

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 preparing, printing, and distributing the Michigan register.

(4) The department of management and budget shall sell copies of Michigan register at a price determined by the office of regulatory reform not to exceed 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 Reform 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 Reform 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 Reform, Executive Office, George W. Romney Building, 111 S. Capitol Avenue, Lansing, MI 48933

RELATIONSHIP TO THE MICHIGAN ADMINISTRATIVE CODE

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

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

SUBSCRIPTIONS AND DISTRIBUTION

The *Michigan Register*, a publication of the State of Michigan, is available for public subscription at a cost of $110.00 per year. Submit subscription requests to: DMB, Office of Administrative Services, P.O. Box 30026, 320 South Walnut Street, Lansing, MI 48909. Checks Payable: State of Michigan. Any questions should be directed to the Office of Regulatory Reform (517) 373-0526.

INTERNET ACCESS

The *Michigan Register* can be viewed free of charge on the Internet web site of the Office of Regulatory Reform: www.state.mi.us/orr

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

Brian D. Devlin, Director
Office of Regulatory Reform

2002 PUBLICATION SCHEDULE

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	2002	
1	January 15, 2002	February 1, 2002
2	February 1, 2002	February 15, 2002
3	February 15, 2002	March 1, 2002
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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."

PROPOSED ADMINISTRATIVE RULES

ORR # 2001-019

DEPARTMENT OF ENVIRONMENTAL QUALITY

WASTE AND HAZORDOUS MATERIALS DIVISION

STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

FILED WITH THE SECRETARY OF STATE ON ----------.
THESE RULES TAKE EFFECT 7 DAYS AFTER FILING WITH THE SECRETARY OF STATE.

(BY AUTHORITY CONFERRED ON THE DEPARTMENT OF ENVIRONMENTAL QUALITY BY SECTION 3C OF 1941 PA 207, MCL 29.3C.)

R 29.4101 TO R 29.4504 OF THE MICHIGAN ADMINISTRATIVE CODE ARE RESCINDED AND R 29.5101 TO R 29.5516 ARE ADDED AS FOLLOWS:

~~PART 1. GENERAL PROVISIONS~~

R 29.4101 ~~Applicability.~~ Rescinded.
R 29.4102 ~~Rescission.~~ Rescinded.
August 19, 2002
R 29.4103 ~~Flammable and combustible liquids code; adoption by reference~~. Rescinded.
R 29.4104 ~~Automotive and marine service station code; adoption by reference.~~ Rescinded.
R 29.4105 ~~Standard for the installation of oil-burning equipment; adoption by reference~~. Rescinded.
R 29.4106 ~~Standard for the storage of flammable and combustible liquids on farms and isolated construction projects; adoption by reference.~~ Rescinded.

~~PART 2. AMENDMENTS TO FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE~~

R 29.4201 ~~Scope and application.~~ Rescinded.
R 29.4202 ~~Definitions.~~ Rescinded.
R 29.4203 ~~Storage.~~ Rescinded.
R 29.4204 ~~Prohibitions.~~ Rescinded.
R 29.4205 ~~Installation application submittal requirements.~~ Rescinded.
R 29.4206 ~~Flow-through process tanks.~~ Rescinded.
R 29.4207 ~~Scope.~~ Rescinded.
R 29.4208 ~~Design and construction of tanks.~~ Rescinded.
R 29.4209 ~~Installation of outside aboveground tanks.~~ Rescinded.
R 29.4210 ~~Installation of underground tanks.~~ Rescinded.

R 29.4211 ~~Installation of tanks inside of buildings.~~ Rescinded.
R 29.4212 ~~Supports, foundations, and anchorage for all tank locations.~~ Rescinded.
R 29.4213 ~~Protection and sources of ignition.~~ Rescinded.
R 29.4214 ~~Testing and maintenance.~~ Rescinded.
R 29.4215 ~~Fire protection and identification.~~ Rescinded.
R 29.4216 ~~Prevention of overfilling of tanks.~~ Rescinded.
R 29.4217 ~~Leakage detection and inventory records for tank systems.~~ Rescinded.
R 29.4218 ~~Stairways, attached ladders, and walks.~~ Rescinded.
R 29.4219 ~~Aboveground storage tank systems within vaults.~~ Rescinded.
R 29.4220 ~~General.~~ Rescinded.
R 29.4221 ~~Materials for piping, valves, and fittings.~~ Rescinded.
R 29.4222 ~~Pipe joints.~~ Rescinded.
R 29.4223 ~~Supports.~~ Rescinded.
R 29.4224 ~~Protection against corrosion.~~ Rescinded.
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R 29.4227 ~~Identification.~~ Rescinded.
R 29.4228 ~~Piping inside buildings.~~ Rescinded.
R 29.4229 ~~Antisiphoning devices.~~ Rescinded.
R 29.4230 ~~Pump valves.~~ Rescinded.
R 29.4231 ~~Pumphouses and rooms.~~ Rescinded.
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R 29.4238 ~~Liquid handling, transfer, and use.~~ Rescinded.
R 29.4239 ~~Control of ignition sources.~~ Rescinded.
R 29.4240 ~~Standards adoption.~~ Rescinded.

~~PART 3. AMENDMENTS TO AUTOMOTIVE AND MARINE SERVICE STATION CODE~~

R 29.4301 ~~Scope and application.~~ Rescinded.
R 29.4302 ~~Definitions~~ Rescinded.
R 29.4303 ~~General provisions.~~ Rescinded.
R 29.4304 ~~Inside buildings.~~ Rescinded.
R 29.4305 ~~Aboveground tank systems for motor vehicle fueling.~~ Rescinded.
R 29.4306 ~~Location of dispensing devices and emergency power cutoff.~~ Rescinded.
R 29.4307 ~~Fuel dispensing devices~~ Rescinded.
R 29.4308 ~~Remote pumping systems.~~ Rescinded.
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R 29.4313 ~~Attendance at, or supervision of, dispensing.~~ Rescinded.
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R 29.4315 ~~Unattended self-service stations.~~ Rescinded.
R 29.4316 ~~Drainings and waste disposal.~~ Rescinded.
R 29.4317 ~~Sources of ignition.~~ Rescinded.
R 29.4318 ~~Fire control.~~ Rescinded.
R 29.4319 ~~Signs.~~ Rescinded.

~~**PART 4. AMENDMENTS TO THE STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT**~~

R 29.4401 ~~Definitions.~~ Rescinded.
R 29.4402 ~~General provisions.~~ Rescinded.
R 29.4403 ~~Fabrication.~~ Rescinded.
R 29.4404 ~~Installation of underground tanks including tanks under buildings.~~ Rescinded.
R 29.4405 ~~Control of spillage from aboveground tanks.~~ Rescinded.
R 29.4406 ~~Tank vehicle and tank car loading and unloading facilities.~~ Rescinded.

~~**PART 5. AMENDMENTS TO THE STANDARD FOR THE STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS ON FARMS AND ISOLATED CONSTRUCTION PROJECTS.**~~

R 29.4501 ~~Standard for the storage of flammable and combustible liquids on farms, isolated construction projects and in rural areas.~~ Rescinded.
R 29.4502 ~~Scope.~~ Rescinded.
R 29.4503 ~~Tanks that have a capacity of 60 to 1,100 gallons each.~~ Rescinded.
R 29.4504 ~~Protection of dispensing area.~~ Rescinded.

PART 1. GENERAL PROVISIONS

R 29.5101 APPLICABILITY.
RULE 101. THESE RULES APPLY TO THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS (FL/CL) AS SPECIFIED IN PARTS 2 TO 5 OF THESE RULES. COMPLIANCE WITH THESE RULES DOES NOT EXCUSE COMPLIANCE WITH OTHER APPLICABLE STATE AND FEDERAL STATUTES AND RULES AND REGULATIONS PROMULGATED THERETO.

R 29.5102 FLAMMABLE AND COMBUSTIBLE LIQUIDS (FL/CL) CODE: ADOPTION BY REFERENCE.
RULE 102. THE PROVISIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PAMPHLET NO. 30, 2000 EDITION, ENTITLED “FLAMMABLE AND COMBUSTIBLE LIQUIDS (FL/CL) CODE,” REFERRED TO IN PART 2 OF THESE RULES, IS ADOPTED BY REFERENCE AS PART OF THESE RULES. COPIES OF THE ADOPTED NFPA 30 ARE AVAILABLE FOR INSPECTION AND DISTRIBUTION EITHER AT THE OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION, 525 W. ALLEGAN, LANSING, MICHIGAN 48933, OR FROM THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), 1

BATTERYMARCH PARK, QUINCY, MASSACHUSETTS, 02269-9101. THE COST OF NFPA 30 AS OF THE TIME OF ADOPTION OF THESE RULES IS $35.25 PER COPY.

R 29.5103 CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES; ADOPTION BY REFERENCE.

RULE 103. THE PROVISIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PAMPHLET NO. 30A, 2000 EDITION, ENTITLED, "CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES," REFERRED TO IN PART 3 OF THESE RULES, IS ADOPTED BY REFERENCE IN THESE RULES. COPIES OF THE ADOPTED NFPA 30A ARE AVAILABLE FOR INSPECTION AND DISTRIBUTION EITHER AT THE OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION, 525 W. ALLEGAN, LANSING, MICHIGAN 48933, OR FROM THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), 1 BATTERYMARCH PARK, QUINCY, MASSACHUSETTS, 02269-9101. THE COST OF NFPA 30A AS OF THE TIME OF ADOPTION OF THESE RULES IS $26.75 PER COPY.

R 29.5104 STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT; ADOPTION BY REFERENCE.

RULE 104. THE PROVISIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) PAMPHLET NO. 31, 2001 EDITION, ENTITLED "STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT," REFERRED TO IN PART 4 OF THESE RULES, ARE ADOPTED BY REFERENCE IN THESE RULES. COPIES OF THE ADOPTED NFPA 31 ARE AVAILABLE FOR INSPECTION AND DISTRIBUTION EITHER AT THE OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION, 525 W. ALLEGAN, LANSING, MICHIGAN 48933, OR FROM THE NATIONAL FIRE PROTECTION ASSOCIATION, 1 BATTERYMARCH PARK, QUINCY, MASSACHUSETTS, 02269-9101. THE COST OF NFPA 31 AS OF THE TIME OF ADOPTION OF THESE RULES IS $26.75 PER COPY.

R 29.5105 STANDARD FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES; ADOPTION BY REFERENCE.

RULE 105. THE PROVISIONS OF THE NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET NO. 37, 1998 EDITION, ENTITLED "STANDARD FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES," REFERRED TO IN PART 5 OF THESE RULES, ARE ADOPTED BY REFERENCE IN THESE RULES. COPIES OF THE ADOPTED NFPA 37 ARE AVAILABLE FOR INSPECTION AND DISTRIBUTION EITHER AT THE OFFICE OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION, 525 W. ALLEGAN, LANSING, MICHIGAN 48933, OR FROM THE NATIONAL FIRE PROTECTION ASSOCIATION, 1 BATTERYMARCH PARK, QUINCY, MASSACHUSETTS, 02269-9101. THE COST OF NFPA 37 AS OF THE TIME OF ADOPTION OF THESE RULES IS $26.75 PER COPY.

PART 2. AMENDMENTS TO FLAMMABLE AND COMBUSTIBLE LIQUIDS (FL/CL) CODE

R 29.5201 SCOPE.

RULE 201. SECTIONS 1.1.2(7), 1.1.2(8), AND 1.1.3(3) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1.1.2(7) FLOW-THROUGH PROCESS TANKS.

1.1.2(8) STORAGE AND HANDLING OF CLASS IIIB LIQUIDS.
1.1.3(3) OIL AND GAS OPERATIONS UTILIZED FOR THE PURPOSE OF EXPLORATION, DEVELOPMENT, OPERATION, AND ABANDONMENT OF HYDROCARBON RESOURCES REGULATED UNDER PART 615, OF 1994 PA 451, MCL 324.61501 ET SEQ. PART 615 DOES NOT REGULATE CRUDE PETROLEUM COLLECTION TANKS THAT DO NOT RECEIVE CRUDE PETROLEUM DIRECTLY FROM A WELLHEAD THROUGH A PIPELINE SYSTEM.

R 29.5202 APPLICABILITY.
RULE 202. SECTION 1.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
1.3 CHAPTERS 2 AND 3 APPLY TO BULK STORAGE OF LIQUIDS IN TANKS AND SIMILAR VESSELS. CHAPTER 4 APPLIES TO STORAGE OF LIQUIDS IN CONTAINERS AND PORTABLE TANKS IN STORAGE AREAS AND IN WAREHOUSES. CHAPTER 5 APPLIES TO THE HANDLING AND TRANSFER OF LIQUIDS AND RELATED OPERATIONS AND PROCESSING. CHAPTER 6 APPLIES TO ELECTRICAL SYSTEMS.

R 29.5203 EQUIVALENCY.
RULE 203. SECTION 1.4.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 1.4.2(1), 1.4.2(2), AND 1.4.4(10) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
1.4.1 NOTHING IN THIS FL/CL CODE SHALL BE INTENDED TO PREVENT THE USE OF SYSTEMS, METHODS, OR DEVICES OF EQUIVALENT OR SUPERIOR QUALITY, STRENGTH, FIRE RESISTANCE, EFFECTIVENESS, DURABILITY, ENVIRONMENTAL PROTECTION CAPABILITY, OR SAFETY OVER THOSE PRESCRIBED BY THIS FL/CL CODE, IF TECHNICAL DOCUMENTATION IS SUBMITTED TO THE DEPARTMENT TO DEMONSTRATE EQUIVALENCY AND THE SYSTEM, METHOD, OR DEVICE IS APPROVED FOR THE INTENDED PURPOSE.
1.4.2(1) AN OWNER OR OPERATOR MAY MAKE AN APPLICATION FOR A VARIANCE OF RULES BY APPLYING TO THE DEPARTMENT WITH A SATISFACTORY EXPLANATION OF WHY COMPLIANCE IS NOT POSSIBLE. THE DEPARTMENT MAY APPROVE THE VARIANCE REQUEST UPON FINDING THAT THE VARIANCE IS BASED UPON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, WELFARE, PROPERTY, OR THE ENVIRONMENT.
1.4.2(2) A PERSON AGGRIEVED BY A FINAL DECISION OF THE DEPARTMENT ON A REQUEST FOR VARIANCE MAY APPEAL TO THE CIRCUIT COURT WITHIN 21 DAYS OF THE DECISION.
1.4.4(10) UNDERGROUND STORAGE TANKS AT AUTOMOTIVE AND MARINE SERVICE STATIONS SHALL ALSO COMPLY WITH THE PROVISIONS OF R 29.2101 ET SEQ.

R 29.5204 RETROACTIVITY.
RULE 204. SECTION 1.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
1.5 THE PROVISIONS OF THIS FL/CL CODE SHALL BE CONSIDERED NECESSARY TO PROVIDE A REASONABLE LEVEL OF PROTECTION FROM LOSS OF LIFE AND PROPERTY FROM FIRE AND EXPLOSION. THE PROVISIONS SHALL REFLECT SITUATIONS AND THE STATE OF THE ART PREVALENT AT THE TIME THE FL/CL CODE WAS ISSUED. UNLESS OTHERWISE NOTED, IT SHALL NOT BE INTENDED THAT THE PROVISIONS OF THIS FL/CL CODE BE APPLIED TO FACILITIES, EQUIPMENT, STRUCTURES, OR INSTALLATIONS THAT WERE EXISTING OR APPROVED FOR CONSTRUCTION OR INSTALLATION BEFORE THE EFFECTIVE DATE OF THIS FL/CL CODE, EXCEPT IN THOSE CASES WHERE IT IS DETERMINED

BY THE DEPARTMENT THAT THE EXISTING SITUATION INVOLVES A DISTINCT HAZARD TO LIFE, ADJACENT PROPERTY, OR THE ENVIRONMENT.

R 29.5205 DEFINITIONS.

RULE 205. SECTIONS 1.6.2, 1.6.3, 1.6.8, 1.6.43.6, AND 1.6.43.7 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 1.6.2(A), 1.6.2(B), 1.6.9(A), 1.6.9(B), 1.6.9(C), 1.6.9(D), 1.6.9(E), 1.6.9(F), 1.6.10(A), 1.6.10(B), 1.6.10(C), 1.6.10.1, 1.6.10(D), 1.6.10(E), 1.6.17(A), 1.6.18(A), 1.6.23(A), 1.6.24(A), 1.6.31(A), 1.6.32(A), 1.6.39(A), 1.6.41(A), 1.6.43.9, 1.6.43.10, AND 1.6.52(A) ARE ADDED TO THE FL/CL CODE; AND SECTION 1.6.43.3 OF THE FL/CL CODE IS DELETED AS FOLLOWS:

1.6.2 “APPROVED” MEANS ACCEPTABLE TO THE DEPARTMENT.

1.6.2(A) “AREA SUBJECT TO FLOODING” MEANS AN AREA WHERE A 100-YEAR FLOOD OR A FLOOD WITH A MAGNITUDE, WHICH HAS A 1% CHANCE OF OCCURRING OR BEING EXCEEDED IN ANY GIVEN YEAR AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

1.6.2(B) “AST SYSTEM” MEANS A TANK OR COMBINATION OF TANKS, INCLUDING THE PIPES THAT ARE CONNECTED TO THE TANK, TANKS, OR ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS LESS THAN 10% OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK, OR TANKS, BENEATH THE SURFACE OF THE GROUND.

1.6.3 “AUTHORITY HAVING JURISDICTION” MEANS THE DEPARTMENT.

1.6.8 “BUILDING” MEANS A STRUCTURE WITH WALLS OR A ROOF, OR BOTH.

1.6.9(A) “BULK CONTAINER” MEANS A CLOSED CONTAINER THAT HAS A LIQUID CAPACITY OF MORE THAN 793 U.S. GALLONS (3000 LITERS).

1.6.9(B) “CATHODIC PROTECTION” MEANS A TECHNIQUE TO PREVENT THE CORROSION OF A METAL SURFACE BY MAKING THE SURFACE THE CATHODE OF AN ELECTROCHEMICAL CELL. THIS PROTECTION RENDERS A METALLIC TANK OR PIPING COMPONENT NEGATIVELY CHARGED WITH RESPECT TO ITS ENVIRONMENT. THIS PROTECTION SHALL BE DESIGNED BY A CORROSION EXPERT AS DEFINED IN THESE RULES.

1.6.9(C) “CATHODIC PROTECTION TESTER” MEANS A PERSON WHO CAN DEMONSTRATE AN UNDERSTANDING OF THE PRINCIPLES AND MEASUREMENTS OF ALL COMMON TYPES OF CATHODIC PROTECTION SYSTEMS APPLICABLE TO METAL PIPING AND TANK SYSTEMS AND WHO HAS EDUCATION AND EXPERIENCE IN SOIL RESISTIVITY, STRAY CURRENT, STRUCTURE-TO-SOIL POTENTIAL, AND COMPONENT ELECTRICAL ISOLATION MEASUREMENTS OF METAL PIPING AND TANK SYSTEMS. THE PERSON SHALL BE CERTIFIED AS BEING QUALIFIED BY THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE) INTERNATIONAL.

1.6.9(D) “FL/CL CODE” MEANS THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS RULES AS PROMULGATED BY THE DEPARTMENT.

1.6.9(E) “COMPATIBLE” MEANS THE ABILITY OF 2 OR MORE SUBSTANCES TO MAINTAIN THEIR RESPECTIVE PHYSICAL AND CHEMICAL PROPERTIES UPON CONTACT WITH ONE ANOTHER FOR THE DESIGN LIFE OF THE TANK SYSTEM UNDER CONDITIONS LIKELY TO BE ENCOUNTERED DURING THE OPERATIONAL LIFE OF THE SYSTEM.

1.6.9(F) “COMPOSITE” MEANS A METALLIC TANK OR PIPING COMPONENT, THAT HAS A NONMETALLIC COATING, WHICH IS BONDED TO THE METAL AND WHICH IS OF ADEQUATE THICKNESS TO PROVIDE COMPLETE ELECTROCHEMICAL ISOLATION FROM THE ENVIRONMENT.

1.6.10(A) “CORROSION EXPERT” MEANS A PERSON WHO, BY REASON OF THOROUGH KNOWLEDGE OF THE PHYSICAL SCIENCES AND THE PRINCIPALS OF ENGINEERING AND MATHEMATICS ACQUIRED BY A PROFESSIONAL EDUCATION AND RELATED PRACTICAL EXPERIENCE, IS QUALIFIED TO ENGAGE IN THE PRACTICE OF CORROSION CONTROL OF TANK SYSTEMS. THE PERSON SHALL BE CERTIFICATED AS BEING QUALIFIED BY THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE) INTERNATIONAL, AS A SENIOR CORROSION TECHNOLOGIST, A CATHODIC PROTECTION SPECIALIST, OR A CORROSION SPECIALIST OR BE A REGISTERED ENGINEER WHO HAS CERTIFICATION AND LICENSING THAT INCLUDES EDUCATION AND EXPERIENCE IN CORROSION CONTROL.

1.6.10(B) “CORROSION PROTECTION” MEANS PROTECTING A TANK SYSTEM TO PREVENT THE DEGRADATION OF THE METAL THROUGH OXIDATION OR REACTIVITY WITH ITS ENVIRONMENT.

1.6.10(C) “CRITICAL ASSESSMENT ZONE” MEANS PART OF THE SOURCE WATER PROTECTION AREA THAT SURROUNDS A PUBLIC WATER SUPPLY SURFACE WATER INTAKE AND IS DETERMINED IN THE MICHIGAN SOURCE WATER ASSESSMENT PROGRAM, APPROVED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDER SECTION 1453 OF THE SAFE DRINKING WATER ACT.

1.6.10.1 “CRUDE PETROLEUM COLLECTION TANK” MEANS A TANK LOCATED WITHIN, OR IN CLOSE PROXIMITY TO, AN OIL OR GAS FIELD UTILIZED FOR THE TEMPORARY STORAGE OF CRUDE PETROLEUM BEFORE TRANSPORT TO A REFINERY. THE TANK SHALL NOT HAVE A PIPELINE CONNECTION TO AN OIL AND GAS OPERATION REGULATED UNDER PART 615, OF 1994, MCL 324.61501 ET SEQ.

1.6.10(D) “DEPARTMENT” MEANS THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

1.6.10(E) “DIRECTOR” MEANS THE DIRECTOR OF THE DEPARTMENT.

1.6.17(A) “FLOW-THROUGH PROCESS TANK” MEANS A TANK THAT FORMS AN INTEGRAL PART OF A PRODUCTION PROCESS THROUGH WHICH THERE IS A STEADY, VARIABLE, RECURRING, OR INTERMITTENT FLOW OF MATERIALS DURING THE OPERATION OF THE PROCESS AND THE TANK IS UTILIZED TO CARRY OUT OR CONTROL THE HEATING, COOLING, MIXING, BLENDING, SEPARATING, METERING, OR CHEMICAL ACTION OF MATERIALS. THE PROCESSING IS DONE ON A REGULAR BASIS AND IT IS THE PRIMARY FUNCTION OF THE TANK. A FLOW-THROUGH PROCESS TANK DOES NOT INCLUDE A TANK THAT IS USED FOR THE STORAGE OF MATERIALS BEFORE ITS INTRODUCTION INTO THE PRODUCTION PROCESS OR FOR THE STORAGE OF FINISHED PRODUCTS OR BY-PRODUCTS FROM THE PRODUCTION PROCESS OR A TANK THAT IS ONLY USED TO RECIRCULATE MATERIALS.

1.6.18(A) “GALVANIC ANODE CATHODIC PROTECTION” MEANS CATHODIC PROTECTION USING A METAL ANODE THAT PROVIDES SACRIFICIAL PROTECTION TO ANOTHER METAL THAT IS MORE NOBLE WHEN ELECTRICALLY COUPLED IN AN ELECTROLYTE. THE ANODE IS THE SOURCE OF THE PROTECTIVE DIRECT CURRENT. THE PROTECTION SYSTEM SHALL BE DESIGNED BY A CORROSION EXPERT AS DEFINED IN SECTION 1.6.10(A) AND SHALL

PROVIDE ADEQUATE PROTECTION TO THE STRUCTURE OR ANY INTERNAL LINING OR EXTERNAL COATING.

1.6.23(A) "IMPRESSED CURRENT CATHODIC PROTECTION" MEANS CATHODIC PROTECTION USING DIRECT CURRENT SUPPLIED BY A DEVICE EMPLOYING A POWER SOURCE THAT IS EXTERNAL TO THE ELECTRODE SYSTEM, SUCH AS A TRANSFORMER RECTIFIER. THE PROTECTION SYSTEM SHALL BE DESIGNED BY A CORROSION EXPERT AS DEFINED IN SECTION 1.6.10(A) AND SHALL PROVIDE ADEQUATE PROTECTION TO THE PROTECTED STRUCTURE WITHOUT CAUSING ANY DAMAGE TO THE STRUCTURE OR ANY INTERNAL LINING OR EXTERNAL COATING.

1.6.24(A) "INHERENT CORROSION PROTECTION" MEANS PROTECTING AGAINST CORROSION BY SELECTING A MATERIAL WHICH BY ITS NATURE DOES NOT DEGRADE THROUGH OXIDATION OR REACTIVITY WITH ITS ENVIRONMENT.

1.6.31(A) "ON-GRADE" MEANS ABOVEGROUND STORAGE TANKS WHICH HAVE 1 OF THE TANK SURFACES IN CONTACT WITH THE SURFACE OF THE GROUND. TANKS ON CONCRETE SLABS THAT ARE PLACED ON-GRADE, THOUGH THE SURFACE OF THE SLAB MAY BE ABOVE-GRADE, ARE CONSIDERED TO BE ON-GRADE, IF THE TANK IS NOT ELEVATED BY SADDLES OR SUPPORTS SO THAT ALL PARTS OF THE TANK SURFACE CAN BE VISUALLY INSPECTED.

1.6.32(A) "OIL AND GAS OPERATION" MEANS ALL ACTIVITIES ASSOCIATED WITH THE DRILLING, COMPLETING, PRODUCING, AND PLUGGING OF OIL AND GAS WELLS REGULATED UNDER PART 615, OF 1994 PA 451, MCL 324.61501 ET SEQ.

1.6.39(A) "RELEASE" MEANS AS DEFINED IN SECTION 20101(1)(BB) OF PART 201 OF , 1994 PA 451, MCL 324.20101 ET SEQ. INCLUDES, BUT IS NOT LIMITED TO, ANY SPILLING, LEAKING, PUMPING, POURING, EMITTING, EMPTYING, DISCHARGING, INJECTING, ESCAPING, LEACHING, DUMPING, OR DISPOSING OF A HAZARDOUS SUBSTANCE INTO THE ENVIRONMENT, OR THE ABANDONMENT OR DISCARDING OF BARRELS, CONTAINERS, AND OTHER CLOSED RECEPTACLES CONTAINING A HAZARDOUS SUBSTANCE. "RELEASE" DOES NOT INCLUDE ANY OF THE FOLLOWING:

(I) A RELEASE THAT RESULTS IN EXPOSURE TO PERSONS SOLELY WITHIN A WORKPLACE, WITH RESPECT TO A CLAIM THAT THESE PERSONS MAY ASSERT AGAINST THEIR EMPLOYERS.

(II) EMISSIONS FROM THE ENGINE EXHAUST OF A MOTOR VEHICLE, ROLLING STOCK, AIRCRAFT, OR VESSEL.

(III) A RELEASE OF SOURCE, BY-PRODUCT, OR SPECIAL NUCLEAR MATERIAL FROM A NUCLEAR INCIDENT, AS THOSE TERMS ARE DEFINED IN THE ATOMIC ENERGY ACT OF 1954, CHAPTER 1073, 68 STAT. 919, IF THE RELEASE IS SUBJECT TO REQUIREMENTS WITH RESPECT TO FINANCIAL PROTECTION ESTABLISHED BY THE NUCLEAR REGULATORY COMMISSION UNDER SECTION 170 OF CHAPTER 14 OF TITLE I OF THE ATOMIC ENERGY ACT OF 1954, CHAPTER 1073, 71 STAT. 576, 42 U.S.C. 2210, OR ANY RELEASE OF SOURCE BY-PRODUCT OR SPECIAL NUCLEAR MATERIAL FROM ANY PROCESSING SITE DESIGNATED UNDER SECTION 102(A)(1) OF TITLE I OR 302(A) OF TITLE III OF THE URANIUM MILL TAILINGS RADIATION CONTROL ACT OF 1978, PUBLIC LAW 95-604 42 U.S.C. 7912 AND 7942.

(IV) IF APPLIED ACCORDING TO LABEL DIRECTIONS AND ACCORDING TO GENERALLY ACCEPTED AGRICULTURAL AND MANAGEMENT PRACTICES, THE APPLICATION OF A FERTILIZER, SOIL CONDITIONER, AGRONOMICALLY APPLIED MANURE, OR PESTICIDE, OR

FRUIT, VEGETABLE, OR FIELD CROP RESIDUALS OR PROCESSING BY-PRODUCTS, AQUATIC PLANTS, OR A COMBINATION OF THESE SUBSTANCES. AS USED IN THIS PARAGRAPH, FERTILIZER AND SOIL CONDITIONER HAVE THE MEANINGS GIVEN TO THESE TERMS IN PART 85 OF 1994 PA 451, MCL 324.101 ET SEQ., AND PESTICIDE HAS THE MEANING GIVEN TO THAT TERM IN PART 83, MCL 324.8301 ET SEQ. OF 1994 PA 451.

(V) A RELEASE DOES NOT INCLUDE FRUITS, VEGETABLES, FIELD CROP PROCESSING BY-PRODUCTS, OR AQUATIC PLANTS THAT ARE APPLIED TO THE LAND FOR AN AGRICULTURAL USE OR FOR USE AS AN ANIMAL FEED, IF THE USE IS CONSISTENT WITH GENERALLY ACCEPTED AGRICULTURAL AND MANAGEMENT PRACTICES DEVELOPED UNDER 1981 PA 93 MCL 286.471 ET SEQ.

1.6.41(A) "SOURCE WATER PROTECTION AREA" MEANS THE AREA APPROVED AND PUBLISHED BY THE STATE OF MICHIGAN FOR A PUBLIC WATER SUPPLY IN ACCORDANCE WITH THE MICHIGAN SOURCE WATER ASSESSMENT PROGRAM AS PRESCRIBED BY THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY UNDER SECTION 1453 OF THE SAFE DRINKING WATER ACT.

1.6.43.3 "FIRE RESISTANT TANK". DELETE.

1.6.43.6 "PROTECTED ABOVEGROUND TANK" MEANS AN ABOVEGROUND STORAGE TANK THAT IS LISTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES STANDARD 2085, "STANDARD FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS", OR AN EQUIVALENT TEST PROCEDURE THAT CONSISTS OF A PRIMARY TANK PROVIDED WITH PROTECTION FROM PHYSICAL DAMAGE AND FIRE-RESISTIVE PROTECTION FROM EXPOSURE TO A HIGH-INTENSITY LIQUID POOL FIRE. DURING THIS EQUIVALENT TEST PROCEDURE, THE TEMPERATURE INSIDE THE TANK SHALL NOT EXCEED AN AVERAGE MAXIMUM TEMPERATURE RISE OF 260 FAHRENHEIT (144 CELSIUS). DURING THE 2-HOUR FIRE EXPOSURE, BOTH THE PRIMARY AND THE SECONDARY CONTAINMENT STRUCTURAL INTEGRITY SHALL STAY INTACT.

1.6.43.7 "SECONDARY CONTAINMENT TANK" MEANS A TANK THAT IS ENCLOSED COMPLETELY WITHIN A LARGER TANK OF THE SAME OR DIFFERENT MATERIAL. THE PRIMARY TANK SHALL BE CONSTRUCTED AND THE SECONDARY OR OUTER TANK SHALL MEET THE REQUIREMENTS OF SECTION 2.2.3. THE INTERSTITIAL OR ANNULAR SPACE BETWEEN THE WALLS OF THE 2 TANKS SHALL ALLOW FOR LIQUID COMMUNICATION. BOTH THE PRIMARY AND SECONDARY CONTAINMENT SHALL BE PROVIDED WITH ADEQUATE NORMAL AND EMERGENCY VENTING IN COMPLIANCE WITH SECTION 2.2.5.

1.6.43.9 "TANK SYSTEM" MEANS AST SYSTEM OR UST SYSTEM.

1.6.43.10 "UST SYSTEM" MEANS A TANK OR COMBINATION OF TANKS, INCLUDING THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS, OR UNDERGROUND ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS 10% OR MORE OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS, BENEATH THE SURFACE OF THE GROUND.

1.6.52(A) "WELLHEAD PROTECTION AREA" MEANS THE AREA APPROVED AND PUBLISHED BY THE STATE OF MICHIGAN FOR A PUBLIC WATER SUPPLY IN ACCORDANCE WITH THE STATE OF MICHIGAN WELLHEAD PROTECTION PROGRAM, AS PRESCRIBED BY THE UNITED

STATES ENVIRONMENTAL PROTECTION AGENCY UNDER SECTION 1428 OF THE SAFE DRINKING WATER ACT.

R 29.5206 DEFINITION AND CLASSIFICATION OF LIQUIDS.

RULE 206. SECTIONS 1.7.2.1(A) AND 1.7.2.2(A) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1.7.2.1(A) AUTO IGNITION TEMPERATURE. THE AUTO IGNITION TEMPERATURE IS THE MINIMUM TEMPERATURE REQUIRED TO INITIATE SELF-SUSTAINED COMBUSTION IN A SUBSTANCE WITHOUT ANY APPARENT SOURCE OF IGNITION. THE SUBSTANCE MAY BE LIQUID, SOLID, OR GASEOUS.

1.7.2.2(A) IGNITION TEMPERATURE. THE IGNITION TEMPERATURE OF A SUBSTANCE IS THE MINIMUM TEMPERATURE REQUIRED TO CAUSE SELF-SUSTAINED COMBUSTION, INDEPENDENTLY OF THE HEATING OR HEATED ELEMENT. THE SUBSTANCE MAY BE LIQUID, SOLID, OR GASEOUS,

R 29.5207 GENERAL REQUIREMENTS.

RULE 207. SECTION 1.9.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

1.9.1 STORAGE. LIQUIDS SHALL BE STORED IN TANKS, PORTABLE TANKS, AND BULK CONTAINERS IN COMPLIANCE WITH CHAPTER 2, OR IN CONTAINERS, AND INTERMEDIATE BULK CONTAINERS IN COMPLIANCE WITH CHAPTER 4. EACH TANK OR BULK CONTAINER SHALL BE INSTALLED IN COMPLIANCE WITH ITS DESIGN AND LISTING OR APPROVAL.

R 29.5208 PROHIBITIONS.

RULE 208. SECTIONS 1.10.1 THROUGH 1.10.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1.10.1 UPON NOTIFICATION BY THE DEPARTMENT, A PERSON SHALL NOT DELIVER ANY LIQUIDS INTO A STORAGE TANK SYSTEM UNDER ANY CIRCUMSTANCES THAT ARE PROHIBITED BY THESE RULES OR IF A TANK IS NOT IN COMPLIANCE WITH THESE RULES. NOTIFICATION MAY INCLUDE VERBAL OR WRITTEN COMMUNICATION OR AN AFFIXED WRITTEN NOTIFICATION ON THE STORAGE TANK SYSTEM.

1.10.2 A PERSON SHALL NOT TAMPER WITH, REMOVE, OR DISREGARD WRITTEN NOTIFICATION AFFIXED TO THE STORAGE TANK SYSTEM.

1.10.3 ANY STORAGE TANK SYSTEM OR PRACTICE THAT IS NOT IN COMPLIANCE WITH THESE RULES SHALL BE CONSIDERED TO BE IN VIOLATION OF THESE RULES.

1.10.4 AN OWNER OR OPERATOR SHALL NOT CONTINUE TO USE A STORAGE TANK SYSTEM THAT IS CAUSING A RELEASE AND SHALL EXPEDITIOUSLY EMPTY THE SYSTEM OR THE COMPONENT THAT IS CAUSING THE RELEASE UNTIL THE SYSTEM IS REPAIRED OR REPLACED.

1.10.5 THE DEPARTMENT SHALL ORDER, AT THE EXPENSE OF THE OWNER, A TIGHTNESS TEST OF THE STORAGE TANK SYSTEM WHEN THERE IS REASON TO BELIEVE THAT THE STORAGE TANK SYSTEM IS LEAKING.

1.10.6 THE DEPARTMENT IS AUTHORIZED TO DISAPPROVE A METHODOLOGY, DEVICE, OR TECHNOLOGY APPLIED TO THE INSTALLATION, OPERATION, AND MAINTENANCE OF A STORAGE TANK SYSTEM NOT SPECIFICALLY SET FORTH IN THESE RULES. THE DEPARTMENT MAY PROHIBIT ANY PERSON FROM USING A METHODOLOGY, DEVICE, OR TECHNOLOGY APPLIED TO THE INSTALLATION, OPERATION AND MAINTENANCE OF A

STORAGE TANK SYSTEM IF THE DEPARTMENT DETERMINES THAT SUCH USE MAY CREATE A RISK TO THE PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5209 INSTALLATION APPLICATION SUBMITTAL REQUIREMENTS.

RULE 209. SECTIONS 1.11.1 THROUGH 1.11.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1.11.1 FOR INSTALLATIONS WHERE INDIVIDUAL STORAGE CAPACITY IS MORE THAN 1,100 GALLONS (4,180 LITERS), AN APPLICATION FOR PLAN REVIEW SHALL BE SUBMITTED TO THE DEPARTMENT NOT LESS THAN 30 DAYS BEFORE THE INSTALLATION OF AN ABOVEGROUND STORAGE TANK SYSTEM BY THE OWNER OR OWNER'S DESIGNEE ON BEHALF OF THE OWNER.

1.11.2 THE INSTALLATION APPLICATION SHALL INCLUDE A PLOT MAP THAT SHOWS ALL OF THE FOLLOWING INFORMATION:

(A) THE LOCATIONS OF BUILDINGS, PUBLIC ROADWAYS, RAILROAD MAINLINES, AND POWER LINES AS SPECIFIED IN SECTION 2.3.2.1.

(B) STORM SEWERS, SANITARY SEWERS, MANHOLES, AND CATCH BASINS.

(C) THE PROPOSED LOCATIONS OF TANKS AND BUILDINGS.

(D) THE LOCATION OF PROPERTY LINES.

(E) THE LOCATION OF EXISTING TANKS, ABOVEGROUND AND UNDERGROUND, WITHIN 50 FEET (15 METERS) OF THE INSTALLATION.

(F) THE MATERIAL OF CONSTRUCTION, THE DIMENSION, AND THE CAPACITY OF EACH TANK.

(G) THE CLASS OF LIQUID STORED.

(H) THE TYPE OF VENTING AND PRESSURE RELIEF.

(I) THE LOCATIONS OF SURFACE WATER AND WETLANDS WITHIN 25 FEET (7.5 METERS) OF THE INSTALLATION.

(J) THE TYPE OF IMPOUNDMENT PROVIDED.

(K) THE LOCATION OF SINGLE-FAMILY DRINKING WATER WELLS WITHIN 50 FEET (15 METERS) OF THE INSTALLATION; TYPE IIB AND III NONCOMMUNITY PUBLIC WATER WELLS WITHIN 75 FEET (22.5 METERS) OF THE INSTALLATION; AND TYPE I COMMUNITY AND TYPE IIA NONCOMMUNITY PUBLIC WATER WELLS WITHIN 200 FEET (30 METERS) OF THE INSTALLATION.

(L) DESIGNATE WHETHER THE INSTALLATION IS WITHIN A DELINEATED WELLHEAD PROTECTION AREA.

(M) DESIGNATE WHETHER THE INSTALLATION IS WITHIN AN APPROVED CRITICAL ASSESSMENT ZONE OF A DELINEATED SOURCE WATER PROTECTION AREA.

1.11.3 THE DEPARTMENT SHALL ISSUE A PLAN REVIEW REPORT WITHIN 30 DAYS OF THE RECEIPT. IF THE REPORT IS NOT ISSUED WITHIN 30 DAYS, THE INSTALLATION MAY BE CONSTRUCTED ACCORDING TO THE SUBMITTED PLANS AND SHALL BE IN COMPLIANCE WITH THESE RULES.

1.11.4 UPON COMPLETION OF THE INSTALLATION, THE DEPARTMENT SHALL BE NOTIFIED NOT LESS THAN 7 CALENDAR DAYS BEFORE THE INSTALLATION IS PLACED IN SERVICE. THE DEPARTMENT SHALL INSPECT THE INSTALLATION FOLLOWING THE RECEIPT OF NOTIFICATION AND SHALL CERTIFY THE INSTALLATION IF THE REQUIREMENTS OF THESE RULES HAVE BEEN MET. IF THE INSPECTION IS NOT MADE WITHIN 5 WORKING DAYS OF RECEIPT OF NOTIFICATION, THE INSTALLATION MAY BE PLACED IN SERVICE AND A

NOTARIZED AFFIDAVIT SHALL BE SUBMITTED TO THE DEPARTMENT ATTESTING TO THE FACT THAT THE INSTALLATION COMPLIES WITH THE PLANS SUBMITTED AND APPLICABLE RULES.
1.11.5 UPON REQUEST, ALL PLANS AND SPECIFICATIONS THAT ARE SUBMITTED TO THE DEPARTMENT FOR REVIEW SHALL BE RETURNED AFTER THE DEPARTMENT HAS CERTIFIED THE INSTALLATION OR WITHIN 30 WORKING DAYS AFTER NOTIFICATION TO THE AUTHORITY HAVING JURISDICTION OF THE COMPLETION OF THE INSTALLATION. PLANS AND SPECIFICATIONS MAY BE MARKED "CONFIDENTIAL – DO NOT COPY" AT THE TIME THEY ARE SUBMITTED.

R 29.5210 GENERAL.
RULE 210. SCOPE. SECTION 2.1.1(2) OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
2.1.1(2) THE STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS OF LESS THAN 660 GALLONS (2,508 LITERS) IN PORTABLE CONTAINERS AND LESS THAN 793 GALLONS (3,000 LITERS) FOR INTERMEDIATE BULK CONTAINERS.

R 29.5211 DESIGN AND CONSTRUCTION OF TANKS.
RULE 211. MATERIALS OF CONSTRUCTION. SECTIONS 2.2.2.1 AND 2.2.2.2 ARE ADDED TO THE FL/CL CODE AND SECTIONS 2.2.2(B)(3), 2.2.2(B)(4), AND 2.2.2(C) OF THE FL/CL CODE ARE DELETED AS FOLLOWS:
2.2.2(B)(3) DELETED.
2.2.2(B)(4) DELETED.
2.2.2(C) DELETED.
2.2.2.1 AN OPEN TANK SHALL NOT BE USED FOR THE STORAGE OF LIQUID.
2.2.2.2 AN ABOVEGROUND TANK SHALL BE REPAIRED WITH MATERIAL THAT IS EQUAL TO THE ORIGINAL MATERIAL SPECIFICATIONS. THE USE OF ANY OTHER MATERIAL IS SUBJECT TO APPROVAL BY THE DEPARTMENT, WHICH IS BASED UPON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5212 DESIGN STANDARDS.
RULE 212. DESIGN STANDARDS FOR ATMOSPHERIC TANKS. SECTION 2.2.3.1.2 EXCEPTION 2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.2.3.1(4) AND 2.2.3.1.2 EXCEPTION 1 OF THE FL/CL CODE ARE DELETED AS FOLLOWS:
2.2.3.1.1(4) DELETED.
2.2.3.1.2 EXCEPTION 1 DELETED.
2.2.3.1.2 EXCEPTION 2 HORIZONTAL, CYLINDRICAL, AND RECTANGULAR TANKS BUILT ACCORDING TO ANY STANDARDS SPECIFIED IN 2.2.3.1.1(1) OR 2.2.3.1.1(2) SHALL BE PERMITTED TO OPERATE AT PRESSURES FROM ATMOSPHERIC TO 1 POUNDS PER SQUARE INCH GAUGE (GAUGE PRESSURE OF 6.9 KILOPASCALS) AND SHALL BE LIMITED TO 2.5 POUNDS PER SQUARE INCH GAUGE (GAUGE PRESSURE OF 17.2 KILOPASCALS) UNDER EMERGENCY VENTING CONDITIONS.

R 29.5213 DESIGN OF TANK VENTS.
RULE 213. NORMAL VENTING FOR TANKS. SECTION 2.2.5.1.6 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
2.2.5.1.6 TANKS AND PRESSURE VESSELS THAT STORE CLASS I LIQUIDS SHALL BE EQUIPPED WITH VENTING DEVICES THAT ARE NORMALLY CLOSED EXCEPT WHEN VENTING UNDER PRESSURE OR VACUUM CONDITIONS.

R 29.5214 EMERGENCY RELIEF VENTING FOR FIRE EXPOSURE FOR ABOVEGROUND TANKS.
RULE 214. THE EXCEPTION FROM SECTION 2.2.5.2.1 IS DELETED FROM THE FL/CL CODE.

R 29.5215 DESIGN OF STORAGE TANK SYSTEM CORROSION PROTECTION.
RULE 215. SECTION 2.2.6 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.2.6.1.1(2), 2.2.6.1.3, 2.2.6.1.4, AND 2.2.6.1.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
2.2.6 MATERIAL USED TO FABRICATE THE TANK SYSTEM SHALL BE THICK ENOUGH TO COMPENSATE FOR INTERNAL CORROSION AND COMPATIBLE WITH THE PRODUCT STORED FOR THE DESIGN LIFE OF THE TANK SYSTEM OR OTHER APPROVED MEANS OF CORROSION PROTECTION SHALL BE PROVIDED.
2.2.6.1.1(2) EXTERNAL CORROSION PROTECTION FOR TANKS. APPROVED OR LISTED CORROSION-RESISTANT MATERIALS OR SYSTEMS SHALL BE IN ACCORDANCE WITH THE FOLLOWING RECOGNIZED STANDARDS OF DESIGN:
(A) UL 1316, STANDARD FOR GLASS-FIBER-REINFORCED PLASTIC UNDERGROUND STORAGE TANKS FOR PETROLEUM PRODUCTS, ALCOHOLS, AND ALCOHOL-GASOLINE MIXTURES. ADOPTED BY REFERENCE IN SECTION 7.1.2.8.
(B) UL 1746, STANDARD FOR EXTERNAL CORROSION PROTECTION SYSTEMS FOR STEEL UNDERGROUND STORAGE TANKS. ADOPTED BY REFERENCE IN SECTION 7.1.2.8.
(C) STI ACT-100, SPECIFICATION FOR EXTERNAL CORROSION PROTECTION OF FRP COMPOSITE STEEL UNDERGROUND TANKS, F894. ADOPTED BY REFERENCE IN SECTION 7.1.2.7.
2.2.6.1.3 THE EXTERIOR OF THE TANK BOTTOM, FOR EITHER SINGLE OR DOUBLE-BOTTOM TANKS THAT ARE INSTALLED ON GRADE, AT THE SAME ELEVATION AS THE BOTTOM OF THE DIKED AREA, SHALL BE PROTECTED AGAINST CORROSION BY 1 OF THE FOLLOWING:
(A) A PROPERLY ENGINEERED, INSTALLED, AND MAINTAINED CATHODIC PROTECTION SYSTEM THAT IS IN COMPLIANCE WITH RECOGNIZED STANDARDS OF DESIGN, SUCH AS THE AMERICAN PETROLEUM INSTITUTE RP 651, FIRST EDITION, 1997, CATHODIC PROTECTION OF ABOVEGROUND PETROLEUM STORAGE TANKS, ADOPTED BY REFERENCE IN SECTION 7.1.2.1, OR NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE) INTERNATIONAL, RP 0193, EXTERNAL CATHODIC PROTECTION OF ON-GRADE METALLIC STORAGE TANK BOTTOMS, ADOPTED BY REFERENCE IN SECTION 7.1.2.5.
(B) A SHOP-FABRICATED TANK THAT HAS A SHOP-APPLIED EXTERNAL MASTIC-COATED BOTTOM MAY BE INSTALLED ON A CONCRETE OR ASPHALT PAD UNDER THE ENTIRE TANK BOTTOM, IF THE PAD IS ABOVE THE LEVEL OF GRADE OR ANY POSSIBLE STANDING WATER.

(C) WHEN A NEW BOTTOM IS INSTALLED IN AN EXISTING TANK, THE EXTERIOR OF THE NEW BOTTOM SHALL BE PROVIDED WITH CATHODIC PROTECTION IN COMPLIANCE WITH SUBSECTION (A) OF THIS SECTION REGARDLESS OF WHETHER OR NOT THE NEW BOTTOM REPLACES THE OLD BOTTOM OR THE OLD BOTTOM IS LEFT IN PLACE AND THE NEW BOTTOM IS PLACED ABOVE THE OLD BOTTOM.

2.2.6.1.4 CATHODIC PROTECTION SYSTEMS FOR ALL ABOVEGROUND AND UNDERGROUND STORAGE TANKS SHALL BE MAINTAINED TO INCLUDE ALL OF THE FOLLOWING MINIMUM REQUIREMENTS:

(1) AN INSPECTION OF AN IMPRESSED CURRENT SYSTEM NOT LESS THAN ONCE EVERY 60 DAYS TO MAKE SURE THAT IT IS OPERATIONAL.

(2) AN INSPECTION NOT LESS THAN ONCE EVERY 3 YEARS OF THE EFFECTIVENESS OF THE CATHODIC PROTECTION SYSTEM BY A CERTIFIED CATHODIC PROTECTION TESTER AS DEFINED IN SECTION 1.6.9(C).

(3) AN INSPECTION OF THE EFFECTIVENESS OF THE CATHODIC PROTECTION SYSTEM WITHIN 6 MONTHS OF ANY CONSTRUCTION WORK THAT MIGHT DAMAGE THE CATHODIC PROTECTION SYSTEM.

(4) REPAIRS OR REPLACEMENT OF A CATHODIC PROTECTION SYSTEM SHALL BE CONDUCTED BY A NATIONAL ASSOCIATION OF CORROSION ENGINEERS INTERNATIONAL, CERTIFIED CORROSION EXPERT AS DEFINED IN SECTION 1.6.10(A).

2.2.6.1.5. SELECTION OF THE TYPE OF PROTECTION TO BE EMPLOYED SHALL BE BASED UPON THE CORROSION HISTORY OF THE AREA AND THE JUDGMENT OF A QUALIFIED ENGINEER.

R 29.5216 VAULTS FOR ABOVEGROUND TANKS.

RULE 216. SECTIONS 2.2.7.1, 2.2.7.2(B), 2.2.7.2(I), AND 2.2.7.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.2.7.2(K), 2.2.7.2(L), 2.2.7.2(M), AND 2.2.7.2(N) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

2.2.7.1 GENERAL. ABOVEGROUND TANKS SHALL BE PERMITTED TO BE INSTALLED IN VAULTS THAT MEET THE REQUIREMENTS OF SECTION 2.2.7. EXCEPT AS MODIFIED BY THE PROVISIONS OF SECTION 2.2.7, VAULTS SHALL MEET ALL OTHER APPLICABLE PROVISIONS OF THESE RULES.

2.2.7.2 VAULT DESIGN AND CONSTRUCTION. VAULTS SHALL BE DESIGNED AND CONSTRUCTED TO MEET THE FOLLOWING REQUIREMENTS:

(B) THE TOP OF AN ABOVEGROUND VAULT SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL AND SHALL BE DESIGNED TO BE WEAKER THAN THE WALLS OF THE VAULT TO ENSURE THAT THE THRUST OF ANY EXPLOSION OCCURRING INSIDE THE VAULT IS DIRECTED UPWARD BEFORE DESTRUCTIVE INTERNAL PRESSURE DEVELOPS WITHIN THE VAULT. THE TOP OF AN AT-GRADE OR BELOW-GRADE VAULT SHALL BE DESIGNED TO RELIEVE OR CONTAIN THE FORCE OF ANY EXPLOSION OCCURRING INSIDE THE VAULT. THE WALLS OF A VAULT WHICH ARE PARTIALLY BELOW GRADE SHALL EXTEND NOT LESS THAN 4 FEET (1.2 METERS) ABOVE GRADE.

(I) EACH VAULT SHALL BE PROVIDED WITH A MEANS FOR PERSONAL ENTRY, WHICH SHALL ONLY BE AT THE TOP OF THE VAULT TO ALLOW FOR THE VISUAL INSPECTION OF THE TANK AND PIPING SURFACES. AT EACH ENTRY POINT, A WARNING SIGN THAT INDICATES THE NEED FOR PROCEDURES FOR SAFE ENTRY INTO CONFINED SPACES

SHALL BE POSTED. EACH ENTRY POINT SHALL BE SECURED AGAINST UNAUTHORIZED ENTRY AND VANDALISM.
(K) THE VAULT SHALL BE PROVIDED WITH SPILL CONTAINMENT AROUND THE FILL PIPE OR TRANSFER CONNECTION. UNDER TOP FILL APPLICATIONS, SPILL CONTAINMENT SHALL EMPTY BY GRAVITY ONLY INTO THE PRIMARY TANK.
(L) THE LOADING AND UNLOADING TRANSFER CONNECTION FOR ABOVE-GRADE VAULTS SHALL TERMINATE OUTSIDE THE VAULT.
(M) PROVISION SHALL BE MADE FOR THE NORMAL OPERATION OF VALVES WITHOUT ENTERING THE VAULT.
(N) A VAULT SHALL BE LOCATED NOT LESS THAN 15 FEET (4.5 METERS) FROM BUILDINGS AND PROPERTY LINES.
2.2.7.3 TANK SELECTION AND ARRANGEMENT. TANKS SHALL BE LISTED FOR ABOVEGROUND USE. EACH TANK SHALL BE IN ITS OWN VAULT AND SHALL BE COMPLETELY ENCLOSED BY THE VAULT. SUFFICIENT CLEARANCE BETWEEN THE TANK AND THE VAULT SHALL BE PROVIDED TO ALLOW FOR VISUAL INSPECTION AND MAINTENANCE OF ALL THE VAULT SURFACES AS WELL AS THE TANK AND ITS APPURTENANCES.

R 29.5217 FIRE RESISTANT TANKS.
RULE 217. SECTION 2.2.8 OF THE FL/CL CODE IS DELETED.
2.2.8 FIRE RESISTANT TANKS (DELETED).

R 29.5218 INSTALLATION OF ABOVEGROUND TANKS.
RULE 218. LOCATION WITH RESPECT TO PROPERTY LINES, PUBLIC WAYS, AND IMPORTANT BUILDINGS ON THE SAME PROPERTY. SECTION 2.3.2.1.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.3.2.1.8, 2.3.2.1.9, 2.3.2.1.9.1, AND 2.3.2.1.10 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
2.3.2.1.5 IF LOCATED WITHIN THE SAME DIKED AREA AS OR THE DRAINAGE PATH OF A TANK STORING A CLASS I OR CLASS II LIQUID, THE TANK STORING CLASS IIIB LIQUID SHALL BE LOCATED IN ACCORDANCE WITH SECTION 2.3.2.1.1.
2.3.2.1.8 LOCATION RESTRICTIONS FOR THE INSTALLATION OF ABOVEGROUND TANKS ARE AS FOLLOWS:
(A) AN ABOVEGROUND STORAGE TANK SHALL NOT BE ERECTED LESS THAN 300 FEET (92 METERS) FROM ANY OF THE FOLLOWING:
(I) A MINE SHAFT.
(II) AN AIR ESCAPE SHAFT FOR A MINE.
(III) A SCHOOL.
(IV) A CHURCH.
(V) A HOSPITAL.
(VI) A THEATER.
(VII) AN ASSEMBLY OCCUPANCY FOR 50 OR MORE PERSONS.
(B) THE ABOVEGROUND STORAGE TANK, LOADING OPERATION, OR UNLOADING OPERATION SHALL NOT BE INSTALLED CLOSER THAN 25 FEET (7.6 METERS) PLUS 1 INCH (25 MILLIMETERS) PER 1,000 VOLTS, MEASURED HORIZONTALLY FROM THE NEAREST CONDUCTOR OR POWER LINES, EXCEPT THAT A SERVICE ENTRANCE AND SERVICE LINE

MAY BE CLOSER THAN 25 FEET (7.6 METERS), BUT SHALL NOT BE OVER A TANK LOADING OR UNLOADING AREA.

(C) THE RESTRICTIONS IN SECTION 2.3.2.1.8 (A) OR (B) SHALL NOT APPLY TO AN ABOVEGROUND STORAGE TANK THAT CONTAINS CLASS II OR III LIQUID THAT IS USED EXCLUSIVELY FOR POWERING STATIONARY ENGINES WHICH ARE INSTALLED IN COMPLIANCE WITH PART 5 OF THESE RULES, AND SHALL NOT APPLY TO AN ABOVEGROUND STORAGE TANK THAT STORES FUEL OIL FOR CONSUMPTIVE USE ON THE PREMISES.

2.3.2.1.9 AN ABOVEGROUND TANK SYSTEM SHALL NOT BE INSTALLED WITHIN THE FOLLOWING DISTANCES OF THE FOLLOWING ITEMS:

(A) FIFTY FEET (15.2 METERS) FROM A SINGLE-FAMILY DRINKING WATER WELL.

(B) SEVENTY-FIVE FEET (22.5 METERS) FROM A TYPE IIB NONCOMMUNITY OR TYPE III PUBLIC DRINKING WATER WELL.

(C) TWO HUNDRED FEET (61 METERS) FROM A TYPE I COMMUNITY OR TYPE IIA NONCOMMUNITY PUBLIC DRINKING WATER WELL.

ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED WITHIN 300 FEET (92 METERS) FROM SINGLE-FAMILY DRINKING WELLS, 800 FEET (244 METERS) FROM TYPE IIB AND III NON-COMMUNITY DRINKING WATER WELLS, 2,000 FEET (610 METERS) FROM TYPE I COMMUNITY OR TYPE IIA NON-COMMUNITY DRINKING WATER WELLS. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A DELINEATED WELLHEAD PROTECTION AREA. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A SOURCE WATER PROTECTION AREA CRITICAL ASSESSMENT ZONE, OR 300 FEET (92 METERS) FROM A SURFACE WATERSHED DELINEATED CRITICAL ASSESSMENT ZONE.

EXCEPTION: A PERSON MAY INSTALL AN AST SYSTEM IF IT IS A 1 FOR 1 REPLACEMENT AT AN ACTIVE ABOVEGROUND OR UNDERGROUND STORAGE TANK SYSTEM LOCATION WITHOUT BEING SUBJECT TO THE REQUIREMENTS OF THIS SECTION; IF THE NEW AST IS IN COMPLIANCE WITH THE REQUIREMENTS OF THESE RULES FOR A NEW INSTALLATION, AND IF THE NEW INSTALLATION IS NO CLOSER TO A WELL THAN THE EXISTING INSTALLATION.

2.3.2.1.9.1 A TANK OF MORE THAN 4,000 GALLONS (15,200 LITERS) SHALL NOT BE INSTALLED WITHIN THE CRITICAL ASSESSMENT ZONE AFTER THE EFFECTIVE DATE OF THESE RULES. TANKS THAT HAVE A 4,000 GALLON (15,200 LITERS) OR LESS CAPACITY INSTALLED WITHIN THE CRITICAL ASSESSMENT ZONE AFTER THE EFFECTIVE DATE OF THESE RULES SHALL HAVE LIQUID-TIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION IN COMPLIANCE WITH THIS PART OF THE RULES.

EXCEPTION: TANKS MAY BE INSTALLED OR REPLACED WITHIN A CRITICAL ASSESSMENT ZONE, IF ADDED TO AN ACTIVE TANK SYSTEM WHICH IS CURRENTLY IN OPERATION AND WHICH WAS OPERATIONAL BEFORE THE EFFECTIVE DATE OF THESE RULES. THE TANK MAY BE ADDED, IF IT HAS LIQUID-TIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.3.2.3 AND SECTION 2.6.1. IN ADDITION, BEFORE THE INSTALLATION OF ANY NEW ABOVEGROUND STORAGE TANK, THE FACILITY SHALL BE IN COMPLIANCE WITH SECTION 2.3.2.7 OF THE FL/CL CODE.

2.3.2.1.10 THE REQUIREMENTS OF SUBSECTION 2.3.2.1.9.1 MAY BE MODIFIED IF A PERSON CAN DEMONSTRATE THAT THE ABOVEGROUND STORAGE TANK INSTALLATION IS, OR IS NOT WITHIN A SOURCE WATER PROTECTION AREA, WELLHEAD PROTECTION AREA, OR WELLHEAD ZONE OF INFLUENCE AND IS BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5219 CONTROL OF SPILLS FROM ABOVEGROUND TANKS.

RULE 219. SECTIONS 2.3.2.3.2 AND 2.3.2.3.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.3.2.3(A), 2.3.2.3(B), 2.3.2.3(C) AND EXCEPTIONS, 2.3.2.3.1(E), 2.3.2.3.2(I), 2.3.2.3.2(J), AND 2.3.2.3.2(K) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

2.3.2.3(A) AS SOON AS PRACTICABLE AFTER DETECTION OF A RELEASE, THE OWNER OR OPERATOR OF AN AST SYSTEM THAT RELEASES OR PERMITS TO BE RELEASED ANY FLAMMABLE OR COMBUSTIBLE LIQUID OF MORE THAN 55 GALLONS (209 LITERS) TO THE GROUND OR WITHIN A SECONDARY CONTAINMENT AREA DURING ANY 24-HOUR PERIOD SHALL NOTIFY THE DEPARTMENT BY CONTACTING THE DEPARTMENT'S POLLUTION EMERGENCY ALERTING SYSTEM (PEAS) AT 1-800-292-4706.

2.3.2.3(B) WITHIN 10 DAYS AFTER THE RELEASE, THE OWNER OR OPERATOR SHALL FILE A WRITTEN REPORT WITH THE DEPARTMENT OUTLINING THE CAUSE OF THE RELEASE, DISCOVERY OF THE RELEASE, AND RESPONSE MEASURES TAKEN OR A SCHEDULE FOR COMPLETION OF MEASURES TO BE TAKEN, OR BOTH, TO PREVENT RECURRENCE OF SIMILAR RELEASES.

2.3.2.3(C) AN OWNER OR OPERATOR OF AN AST SYSTEM, WHERE A RELEASE HAS OCCURRED AND WHO IS LIABLE FOR THE ACTIVITY THAT CAUSED THE RELEASE, IS RESPONSIBLE FOR THE NECESSARY RESPONSE ACTIVITY AT THE FACILITY IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN PART 201 OF 1994 PA 451, AS AMENDED, MCL 324.21101 ET SEQ.

EXCEPTION: UNLESS REQUIRED BY THE DEPARTMENT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT, A TANK WHICH HAS A CAPACITY OF 660 GALLONS (2,508 LITER) OR LESS AND WHICH STORES COMBUSTIBLE LIQUID DOES NOT REQUIRE SECONDARY CONTAINMENT.

2.3.2.3.1(E) REMOTE IMPOUNDING. THE WALLS AND FLOOR OF THE REMOTE IMPOUNDING AREA SHALL BE OF A LIQUID-TIGHT, NONCOMBUSTIBLE CONSTRUCTION AND BE DESIGNED TO WITHSTAND A FULL HYDROSTATIC HEAD.

2.3.2.3.2 IMPOUNDING AROUND TANKS BY DIKING. WHEN PROTECTION OF ADJOINING PROPERTY OR WATERWAYS IS BY MEANS OF IMPOUNDING BY DIKING AROUND THE TANKS, THE SYSTEM SHALL BE IN COMPLIANCE WITH ALL OF THE FOLLOWING PROVISIONS:

(A) A SLOPE AWAY FROM THE TANK OF NOT LESS THAN 1% SHALL BE PROVIDED FOR NOT LESS THAN 50 FEET (15 METERS) OR TO THE DIKE BASE, WHICHEVER DISTANCE IS LESS.

(B) THE VOLUMETRIC CAPACITY OF THE DIKED AREA SHALL NOT BE LESS THAN THE GREATEST AMOUNT OF LIQUID THAT CAN BE RELEASED FROM THE LARGEST TANK WITHIN THE DIKED AREA, ASSUMING A FULL TANK. TO ALLOW FOR VOLUME OCCUPIED BY TANKS, THE CAPACITY OF THE DIKED AREA THAT ENCLOSES MORE THAN 1 TANK

SHALL BE CALCULATED AFTER DEDUCTING THE VOLUME OF THE TANKS, OTHER THAN THE LARGEST TANK, BELOW THE HEIGHT OF THE DIKE.

(C) TO PERMIT ACCESS, THE OUTSIDE BASE OF THE DIKE AT GROUND LEVEL SHALL NOT BE CLOSER THAN 10 FEET (3 METERS) TO ANY PROPERTY LINE THAT IS OR CAN BE BUILT UPON.

(D) WALLS AND FLOORS OF THE DIKED AREA SHALL BE OF A LIQUID-TIGHT, NONCOMBUSTIBLE CONSTRUCTION AND BE DESIGNED TO WITHSTAND A FULL HYDROSTATIC HEAD.

(E) EXCEPT AS PROVIDED IN SUBDIVISION (F) OF THIS RULE, THE WALL OF THE DIKE AREA SHALL BE RESTRICTED TO AN AVERAGE INTERIOR HEIGHT OF 6 FEET (1.8 METERS) ABOVE INTERIOR GRADE.

(F) DIKES, OR DIKE AND FENCING COMBINED, MAY BE HIGHER THAN AN AVERAGE OF 6 FEET (1.8 METERS) ABOVE INTERIOR GRADE WHERE PROVISION IS MADE FOR NORMAL ACCESS AND NECESSARY EMERGENCY ACCESS TO TANKS, VALVES, AND OTHER EQUIPMENT AND FOR SAFE EGRESS FROM THE DIKED ENCLOSURE AND WHERE THE FOLLOWING REQUIREMENTS ARE MET:

(I) WHERE THE AVERAGE HEIGHT OF A DIKE THAT CONTAINS CLASS I LIQUIDS IS MORE THAN 12 FEET (3.6 METERS) HIGH, MEASURED FROM INTERIOR GRADE, OR WHERE THE DISTANCE BETWEEN ANY TANK AND THE TOP INSIDE EDGE OF THE DIKE WALL IS LESS THAN THE HEIGHT OF THE DIKE WALL, PROVISION SHALL BE MADE FOR THE NORMAL OPERATION OF VALVES AND FOR ACCESS TO A TANK ROOF OR ROOFS WITHOUT ENTERING BELOW THE TOP OF THE DIKE. THIS MAY BE ACCOMPLISHED THROUGH THE USE OF REMOTE-OPERATED VALVES, ELEVATED WALKWAYS, OR SIMILAR ARRANGEMENTS.

(II) PIPING THAT PASSES THROUGH DIKE WALLS SHALL BE DESIGNED TO PREVENT EXCESSIVE STRESSES AS A RESULT OF SETTLEMENT OR FIRE EXPOSURE.

(III) THE MINIMUM DISTANCE BETWEEN TANKS AND THE TOE OF THE INTERIOR DIKE WALLS SHALL BE 5 FEET (1.5 METERS).

(G) EACH DIKED AREA THAT CONTAINS 2 OR MORE TANKS SHALL BE SUBDIVIDED, PREFERABLY BY DRAINAGE CHANNELS OR AT LEAST BY INTERMEDIATE DIKES, TO PREVENT SPILLS FROM ENDANGERING ADJACENT TANKS WITHIN THE DIKED AREA AS FOLLOWS:

(I) WHEN STORING NORMALLY STABLE LIQUIDS IN VERTICAL CONE ROOF TANKS THAT ARE CONSTRUCTED WITH WEAK ROOF-TO-SHELL SEAM OR IN FLOATING ROOF TANKS, OR WHEN STORING CRUDE PETROLEUM IN PRODUCING AREAS IN ANY TYPE OF TANK, 1 SUBDIVISION FOR EACH TANK THAT HAS A CAPACITY OF MORE THAN 10,000 BARRELS (1,590,000 LITERS) AND 1 SUBDIVISION FOR EACH GROUP OF TANKS, WHERE NO TANK IN THE GROUP HAS A CAPACITY OF MORE THAN 10,000 BARRELS (1,590,000 LITERS), AND THAT HAS AN AGGREGATE CAPACITY OF NOT MORE THAN 15,000 BARRELS (2,385,000 LITERS).

(II) WHEN STORING NORMALLY STABLE LIQUIDS IN TANKS THAT ARE NOT COVERED BY THE PROVISIONS OF PARAGRAPH (I) OF THIS SUBDIVISION, 1 SUBSECTION FOR EACH TANK THAT HAS A CAPACITY OF MORE THAN 2,380 BARRELS (378,500 LITERS) AND 1 SUBDIVISION FOR EACH GROUP OF TANKS WHERE NO TANK HAS A CAPACITY OF MORE

THAN 2,380 BARRELS (378,500 LITERS), AND THAT HAS AN AGGREGATE CAPACITY OF NOT MORE THAN 3,570 BARRELS (567,750 LITERS).

(III) WHEN STORING UNSTABLE LIQUIDS IN ANY TYPE OF TANK, 1 SUBDIVISION FOR EACH TANK, EXCEPT THAT TANKS THAT ARE INSTALLED IN COMPLIANCE WITH THE DRAINAGE REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET NO. 15, 1996 EDITION, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION, ADOPTED BY REFERENCE IN SECTION 7.1.1, SHALL NOT REQUIRE ADDITIONAL SUBDIVISION. SINCE UNSTABLE LIQUIDS WILL REACT MORE RAPIDLY WHEN HEATED THAN WHEN AT AMBIENT TEMPERATURES, SUBDIVISION BY DRAINAGE CHANNELS IS THE PREFERRED METHOD.

(IV) WHEN 2 OR MORE TANKS THAT ARE USED TO STORE CLASS I LIQUIDS, ANY 1 OF WHICH IS OVER 150 FEET (45 METERS) IN DIAMETER, ARE LOCATED IN A COMMON DIKED AREA, INTERMEDIATE DIKES SHALL BE PROVIDED BETWEEN ADJACENT TANKS TO HOLD NOT LESS THAN 10% OF THE CAPACITY OF THE TANK SO ENCLOSED, NOT INCLUDING THE VOLUME THAT IS DISPLACED BY THE TANK.

(V) THE DRAINAGE CHANNELS OR INTERMEDIATE DIKES SHALL BE LOCATED BETWEEN TANKS SO AS TO TAKE FULL ADVANTAGE OF THE AVAILABLE SPACE WITH DUE REGARD FOR THE INDIVIDUAL TANK CAPACITIES. INTERMEDIATE DIKES, WHERE USED, SHALL BE NOT LESS THAN 18 INCHES (45 CUBIC METERS) IN HEIGHT.

(H) WHERE PROVISION IS MADE FOR DRAINING WATER FROM DIKE AREAS OR FROM REMOTE IMPOUNDMENT AREAS, THE DRAINS SHALL BE ATTENDED DURING OPERATION, ONLY MANUALLY ACTIVATED, LOCKED, AND CLOSED WHEN NOT ATTENDED, AND CONTROLLED IN A MANNER THAT PREVENTS FLAMMABLE OR COMBUSTIBLE LIQUIDS FROM ENTERING NATURAL WATER COURSES, PUBLIC SEWERS, OR PUBLIC DRAINS. CONTROL OF DRAINAGE SHALL BE ACCESSIBLE UNDER FIRE CONDITIONS FROM OUTSIDE THE DIKE OR REMOTE IMPOUNDMENT AREA. FOR CLOSED WASTE STREAM SYSTEMS, OTHER CONTROL METHODS THAT PROVIDE AN EQUIVALENT LEVEL OF FIRE SAFETY AND ENVIRONMENTAL PROTECTION ACCEPTABLE TO THE DEPARTMENT WILL BE PERMITTED IF IT IS IN THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

(I) THE STORAGE OF FLAMMABLE AND COMBUSTIBLE MATERIALS, EMPTY OR FULL DRUMS, OR BARRELS SHALL NOT BE PERMITTED WITHIN THE DIKED AREA.

(J) A BUILDING SHALL NOT BE LOCATED WITHIN A DIKED AREA. A NONCOMBUSTIBLE STRUCTURE THAT HOUSES EQUIPMENT WHICH IS NECESSARY FOR HANDLING, TRANSFERRING, BLENDING, OR CONTROLLING THE LIQUID MAY BE LOCATED WITHIN A DIKE IF THE STRUCTURE HAS ADEQUATE VENTILATION. HEATING AND ELECTRICAL INSTALLATIONS FOR THE STRUCTURE SHALL BE APPROVED FOR HAZARDOUS LOCATIONS.

(K) ALL DRAINAGE FROM DIKED SYSTEMS SHALL BE PERFORMED IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.

2.3.2.3.3 SECONDARY CONTAINMENT TANKS. WHERE A SECONDARY CONTAINMENT TANK IS USED TO PROVIDE SPILL CONTROL, THE TANK SHALL MEET ALL OF THE FOLLOWING REQUIREMENTS:

(A) ALL PIPING CONNECTIONS TO THE TANK SHALL BE MADE ABOVE NORMAL MAXIMUM LIQUID LEVEL.

(B) MEANS SHALL BE PROVIDED TO PREVENT THE RELEASE OF LIQUID FROM THE TANK BY SIPHON FLOW.
(C) MEANS SHALL BE PROVIDED FOR DETERMINING THE LEVEL OF LIQUID IN THE TANK. THIS MEANS SHALL BE ACCESSIBLE TO THE DELIVERY OPERATOR.
(D) MEANS SHALL BE PROVIDED TO PREVENT OVERFILLING BY SOUNDING AN ALARM WHEN THE LIQUID LEVEL IN THE TANK REACHES 90% CAPACITY AND BY AUTOMATICALLY STOPPING DELIVERY OF LIQUID TO THE TANK WHEN THE LIQUID LEVEL IN THE TANK REACHES 95% OF CAPACITY. IN NO CASE SHALL THESE PROVISIONS RESTRICT OR INTERFERE WITH THE PROPER FUNCTIONING OF THE NORMAL VENT OR THE EMERGENCY VENT.
(E) SPACING BETWEEN ADJACENT TANKS SHALL BE NOT LESS THAN 3 FEET (.9 METERS).
(F) THE TANK SHALL BE CAPABLE OF RESISTING THE DAMAGE FROM THE IMPACT OF A MOTOR VEHICLE OR SUITABLE COLLISION BARRIERS SHALL BE PROVIDED.
(G) WHERE THE MEANS OF SECONDARY CONTAINMENT IS ENCLOSED, IT SHALL BE PROVIDED WITH EMERGENCY VENTING IN ACCORDANCE WITH SECTION 2.2.5.2.
(H) MEANS SHALL BE PROVIDED TO ESTABLISH THE INTEGRITY OF THE SECONDARY CONTAINMENT, IN ACCORDANCE WITH SECTIONS 2.4.2.3 AND 2.4.2.4. THE SECONDARY CONTAINMENT SHALL BE DESIGNED TO WITHSTAND THE HYDROSTATIC HEAD RESULTING FROM A LEAK FROM THE PRIMARY TANK OF THE MAXIMUM AMOUNT OF LIQUID THAT CAN BE STORED IN THE PRIMARY TANK.

R 29.5220 TANK OPENINGS OTHER THAN VENTS FOR ABOVEGROUND TANKS.
RULE 220. SECTIONS 2.3.2.5.1 AND 2.3.2.5.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
2.3.2.5.1 EACH CONNECTION TO AN ABOVEGROUND TANK THROUGH WHICH LIQUID CAN NORMALLY FLOW OUT OF THE TANK ABOVE THE LIQUID LEVEL SHALL BE PROVIDED WITH A SOLENOID VALVE OR A MECHANICAL ANTI-SIPHONING DEVICE AS CLOSE AS POSSIBLE TO THE TANK.
2.3.2.5.2 EACH CONNECTION TO AN ABOVEGROUND TANK THROUGH WHICH LIQUID CAN NORMALLY FLOW SHALL BE PROVIDED WITH AN INTERNAL OR AN EXTERNAL VALVE THAT IS LOCATED AS CLOSE AS PRACTICAL TO THE SHELL OF THE TANK AND SHALL BE IN COMPLIANCE WITH ALL OF THE FOLLOWING PROVISIONS:
(A) EACH HORIZONTAL TANK OR VERTICAL TANK WHICH HAS A CAPACITY OF 50,000 GALLONS (190,000 LITERS) OR LESS AND WHICH CONTAINS A CLASS I OR CLASS II LIQUID SHALL HAVE ALL LIQUID LINES THAT ARE ATTACHED BELOW LIQUID LEVEL EQUIPPED WITH AN APPROVED HEAT-ACTUATED INTERNAL OR EXTERNAL QUICK-CLOSING VALVE THAT WILL AUTOMATICALLY PREVENT THE FLOW OF LIQUID FROM THE TANK IN THE EVENT OF A FIRE. THE EXTERNAL QUICK-CLOSING VALVE SHALL BE INSTALLED AT THE TANK. THE HEAT-ACTUATED QUICK-CLOSING VALVE IS NOT REQUIRED ON CRUDE PETROLEUM STORAGE TANKS.
(B) EACH HEAT-ACTUATED, QUICK-CLOSING VALVE SHALL BE MAINTAINED IN PROPER OPERATING CONDITION.
(C) EACH WATER DRAIN VALVE SHALL BE AN APPROVED NON-FREEZE VALVE AND SHALL BE LOCKED OR OTHERWISE SECURED IN A CLOSED POSITION WHEN NOT IN USE.

R 29.5221 EXISTING ABOVEGROUND STORAGE TANKS.

RULE 221. SECTIONS 2.3.2.7.1, 2.3.2.7.1(A), 2.3.2.7.1(B), 2.3.2.7.2, 2.3.2.7.2(A), 2.3.2.7.2(B), 2.3.2.7.2(C), 2.3.2.7.3, 2.3.2.7.3(A), AND 2.3.2.7.3(B) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

2.3.2.7.1 FIELD-ERECTED TANKS. ALL EXISTING FIELD-ERECTED TANKS WHICH ARE NOT IN FULL COMPLIANCE WITH THE REQUIREMENTS FOR NEW TANKS UNDER THESE RULES, SHALL MEET 1 OF THE FOLLOWING PROVISIONS:

(A) IF AN API STANDARD 653, ADOPTED BY REFERENCE IN SECTION 7.1.2.1, INTERNAL INSPECTION IS PERFORMED BY AN API CERTIFIED INSPECTOR AND COMPLETED WITH AN ESTABLISHED CALCULATED CORROSION RATE, BASED ON ORIGINAL CONSTRUCTION THICKNESS DATA OR DETERMINISTIC METHODS IN ACCORDANCE WITH API STANDARD 653 AT THE TIME OF INSPECTION, NO ACTION NEEDS TO BE TAKEN UNTIL THE NEXT RECOMMENDED INTERNAL INSPECTION. THE API STANDARD 653 INSPECTION REPORT SHALL BE AVAILABLE TO THE DEPARTMENT DOCUMENTING THE CALCULATED CORROSION RATE. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.6.1.1 THROUGH SECTION 2.6.1.6.

(B) AN API STANDARD 653 INTERNAL INSPECTION SHALL BE PERFORMED FOR EACH TANK WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES. THIS INTERNAL INSPECTION SHALL BE USED TO DETERMINE WHETHER THE TANK WALL AND BOTTOM THICKNESS EXCEED THE MINIMUM ALLOWABLE THICKNESS UNDER THE API STANDARD 653, AND ESTABLISH A BASELINE FOR THE DEVELOPMENT OF A CORROSION RATE FOR EACH TANK. A SUBSEQUENT API STANDARD 653 INTERNAL INSPECTION SHALL BE CONDUCTED, FOR EACH TANK, WITHIN 5 YEARS TO ESTABLISH THE CALCULATED CORROSION RATE FOR EACH TANK. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.6.1.1 THROUGH SECTION 2.6.1.6.

(C) WITHIN 10 YEARS OF THE EFFECTIVE DATE OF THESE RULES, AN EXISTING TANK SHALL HAVE AN ESTABLISHED CALCULATED CORROSION RATE IN ACCORDANCE WITH THE API STANDARD 653. WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, ANNUAL TANK TIGHTNESS TESTS PURSUANT TO SECTION 2.4.3.2 SHALL BE PERFORMED. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.6.1.1 THROUGH SECTION 2.6.1.6.

(D) WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, PROVIDE LIQUID TIGHT SECONDARY CONTAINMENT FOR THE TANK BY DOING ANY OF THE FOLLOWING:

(I) INSTALLING A DOUBLE BOTTOM USING AN INTEGRAL SECONDARY CONTAINMENT SYSTEM THAT HAS A MONITORED INTERSTITIAL SPACE APPROVED BY THE DEPARTMENT THAT WILL NOT INCREASE THE HAZARD TO PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

(II) INSTALLING A STEEL SECOND BOTTOM WITH A MONITORED INTERSTITIAL SPACE.

(III) INSTALLING AN EXTERNAL IMPERMEABLE LINER UNDER THE EXISTING BOTTOM AND PROVIDE AN EXTERNAL LEAK DETECTION SYSTEM BETWEEN THE TANK BOTTOM AND THE IMPERMEABLE LINER.

(IV) EMPLOYING OTHER METHODS ACCEPTABLE TO THE DEPARTMENT WHICH DO NOT INCREASE THE HAZARD TO PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

THE MONITORING SYSTEM FOR THE INTERSTITIAL SPACE SHALL BE CONTINUOUS AND SOUND AN ALARM IF WATER OR THE PRODUCT STORED IN THE TANK IS DETECTED. A CATHODIC PROTECTION SYSTEM SHALL ALSO BE INSTALLED AS REQUIRED IN SECTION 2.2.6.1.3. IN ADDITION, OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.5 AND 2.6.1.6. CORROSION PROTECTION SHALL BE INSTALLED IN COMPLIANCE WITH SECTION 2.2.6.

(E) WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, THE EXISTING TANK SHALL BE REPLACED WITH A NEW TANK THAT MEETS ALL THE REQUIREMENTS OF THESE RULES.

(F) FIVE YEARS AFTER THE EFFECTIVE DATE OF THESE RULES, AN EXISTING NONCOMPLIANT TANK SHALL BE PERMANENTLY CLOSED UNDER SECTION 2.6.4 OF THE FL/CL CODE.

2.3.2.7.1(A) WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, IF THE REQUIREMENTS OF SECTION 2.3.2.7.1 HAVE NOT BEEN MET OR THE TANK HAS NOT BEEN PERMANENTLY CLOSED UNDER TO SECTION 2.6.4.1, THE TANK IS SUBJECT TO THE PROVISIONS OF SECTION 1.10.

2.3.2.7.1(B) ALL PERSONS UTILIZING API STANDARD 653 TO COMPLY WITH THIS SECTION SHALL DO ALL OF THE FOLLOWING:

(I) NOTIFY THE DEPARTMENT NOT LESS THAN 15 DAYS IN ADVANCE OF A SCHEDULED API STANDARD 653 INTERNAL INSPECTION, UNLESS THE DEPARTMENT IS NOTIFIED AND APPROVES AN EMERGENCY INSPECTION. NOTIFICATION OF THE API STANDARD 653 INSPECTION SHALL BE ON FORM EQP3893 FOUND IN APPENDIX “A” PROVIDED BY THE DEPARTMENT.

(II) PERFORM ROUTINE IN-SERVICE INSPECTIONS UNDER SECTION 4.3.1 OF THE API STANDARD 653 AND MAINTAIN RECORDS ON FILE FOR 3 YEARS.

(III) TESTING AND INSPECTION RECORDS, INSPECTOR RECOMMENDATIONS, AND ACTIONS UNDERTAKEN TO ADDRESS STRUCTURAL INTEGRITY ISSUES AND RECOMMENDATIONS SHALL BE RETAINED FOR THE LIFE OF THE TANK AND SHALL BE ACCESSIBLE TO THE DEPARTMENT.

(IV) ANY REPAIRS RELATED TO THE STRUCTURAL INTEGRITY OF THE TANK, WHICH ARE RECOMMENDED BY THE CERTIFIED API STANDARD 653 INSPECTOR, SHALL BE ADDRESSED IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF THESE RULES AND IN ACCORDANCE WITH API STANDARD 653. THE OPERATOR MAY UTILIZE ALTERNATE REPAIR METHODS ACCEPTABLE TO THE DEPARTMENT IF THEY ARE EQUALLY EFFECTIVE AT MITIGATING THE IDENTIFIED DEFECT AND BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. INSPECTIONS, REPORTS, AND REPAIR RECORDS SHALL BE RETAINED FOR THE LIFE OF THE TANK.

(V) ALL API STANDARD 653 CERTIFIED INSPECTOR REPORTS SHALL INCLUDE A COMPLETE ASSESSMENT OF THE TOTAL SURFACE OF THE TANK BOTTOM USING THE MAGNETIC FLUX SCANNING METHOD FOLLOWED BY ULTRASONIC THICKNESS GAUGING, WHERE NEEDED, OR BY ANOTHER METHOD OF THICKNESS MEASUREMENT ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND

WELFARE AND THE ENVIRONMENT. A COMPLETE ASSESSMENT WILL NOT BE REQUIRED IN THE CASE OF A FLOOR REPLACEMENT.

(VI) INTERNAL TANK INSPECTION SHALL BE SUMMARIZED ON FORM EQP3896 FOUND IN APPENDIX "A" PROVIDED BY THE DEPARTMENT. THE FORM SHALL BE SUBMITTED TO THE DEPARTMENT WITHIN 60 DAYS OF COMPLETION OF THE INSPECTION.

2.3.2.7.2 SHOP-FABRICATED TANKS ON-GRADE. WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, ALL EXISTING SHOP-FABRICATED TANKS ON-GRADE WHICH ARE 50,000 GALLONS (190,000 LITERS) OR LESS IN SIZE AND WHICH ARE NOT IN FULL COMPLIANCE WITH THE REQUIREMENTS FOR NEW TANKS UNDER THESE RULES, SHALL BE IN COMPLIANCE WITH 1 OF THE FOLLOWING PROVISIONS:

(A) IF AN API STANDARD 653 INTERNAL INSPECTION PERFORMED BY AN API STANDARD 653 CERTIFIED INSPECTOR HAS BEEN PERFORMED AND COMPLETED WITH AN ESTABLISHED CALCULATED CORROSION RATE BASED ON ORIGINAL CONSTRUCTION THICKNESS DATA OR DETERMINISTIC METHODS IN ACCORDANCE WITH API STANDARD 653 AT THE TIME OF INSPECTION, NO ACTION NEEDS TO BE TAKEN UNTIL THE NEXT RECOMMENDED INTERNAL INSPECTION. THE API STANDARD 653 INSPECTION REPORT SHALL BE AVAILABLE TO THE DEPARTMENT DOCUMENTING THE CALCULATED CORROSION RATE. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL AND SPILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTIONS 2.6.1.1 THROUGH 2.6.1.6.

(B) AN STI SP001-00, ADOPTED BY REFERENCE IN SECTION 7.1.2.7, INSPECTION SHALL BE PERFORMED BY AN STI SP001-00 CERTIFIED INSPECTOR. THE INSPECTION SHALL DETERMINE THAT THE TANK WALL AND BOTTOM THICKNESS EXCEED THE MINIMUM ALLOWABLE THICKNESSES UNDER THE STI SP001-00. A SUBSEQUENT STI SP001-00 INSPECTION SHALL BE CONDUCTED FOR EACH TANK NOT LESS THAN ONCE EVERY 10 YEARS. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL AND SPILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTIONS 2.6.1.1 THROUGH 2.6.1.6.

(C) AN API STANDARD 653 INTERNAL INSPECTION SHALL BE PERFORMED WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES. THE INSPECTION SHALL DETERMINE THAT THE TANK WALL AND BOTTOM THICKNESS EXCEED THE MINIMUM ALLOWABLE THICKNESS UNDER THE API STANDARD 653 AND ESTABLISH A BASELINE FOR THE DEVELOPMENT OF A CORROSION RATE FOR EACH TANK. A SUBSEQUENT API STANDARD 653 INTERNAL TANK INSPECTION SHALL BE CONDUCTED, FOR EACH TANK, WITHIN 5 YEARS TO ESTABLISH THE CALCULATED CORROSION RATE FOR THE TANK. IN ADDITION, WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, EACH TANK SHALL BE PROVIDED WITH OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.1 THROUGH 2.6.1.6.

(D) WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, PROVIDE LIQUID-TIGHT SECONDARY CONTAINMENT FOR THE TANK BY DOING ANY OF THE FOLLOWING:

(I) INSTALLING A DOUBLE BOTTOM USING AN INTEGRAL SECONDARY CONTAINMENT SYSTEM WHICH HAS A MONITORED INTERSTITIAL SPACE APPROVED BY THE DEPARTMENT THAT WILL NOT INCREASE THE HAZARD TO PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

(II) INSTALLING A STEEL SECOND BOTTOM THAT HAS A MONITORED INTERSTITIAL SPACE.
(III) INSTALLING AN EXTERNAL IMPERMEABLE LINER UNDER THE EXISTING BOTTOM AND PROVIDING AN EXTERNAL LEAK DETECTION SYSTEM BETWEEN THE TANK BOTTOM AND THE IMPERMEABLE LINER.
(IV) EMPLOYING OTHER METHODS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
THE MONITORING SYSTEM FOR THE INTERSTITIAL SPACE SHALL BE CONTINUOUS AND SOUND AN ALARM IF WATER OR THE PRODUCT STORED IN THE TANK IS DETECTED. A CATHODIC PROTECTION SYSTEM SHALL ALSO BE INSTALLED AS REQUIRED IN SECTION 2.2.6.1.3. IN ADDITION, OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.5 AND 2.6.1.6.
(E) INSTALL A SECONDARILY CONTAINED TANK SYSTEM WHICH IS IN COMPLIANCE WITH SECTION 2.3.2.3.3 AND WHICH HAS A CONTINUOUS LEAK DETECTION SYSTEM IN THE INTERSTICE. THE MONITORING SYSTEM SHALL SOUND AN ALARM IF WATER OR THE PRODUCT STORED IN THE TANK IS DETECTED. A CORROSION PROTECTION SYSTEM SHALL ALSO BE INSTALLED AS REQUIRED IN SECTION 2.2.6.1.3. IN ADDITION, OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.5 AND 2.6.1.6.
(F) PROVIDE LIQUID-TIGHT SECONDARY CONTAINMENT THAT MEETS THE REQUIREMENTS OF SECTION 2.3.2.3.2. IN ADDITION, OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.5 AND 2.6.1.6.
(G) EMPLOY OTHER METHODS AS APPROVED BY THE DEPARTMENT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
(H) REPLACE THE EXISTING TANK WITH A NEW TANK THAT MEETS ALL THE REQUIREMENTS OF THESE RULES.
2.3.2.7.2(A) WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, IF THE REQUIREMENTS OF SECTION 2.3.2.7.2 HAVE NOT BEEN MET OR THE TANK HAS NOT BEEN PERMANENTLY CLOSED UNDER SECTION 2.6.4.1, THE TANK IS SUBJECT TO THE PROVISIONS OF SECTION 1.10.
2.3.2.7.2(B) ALL PERSONS UTILIZING STI SP001-00 OR API STANDARD 653 TO COMPLY WITH THIS RULE SHALL DO ALL OF THE FOLLOWING:
(A) NOTIFY THE DEPARTMENT NOT LESS THAN 15 DAYS IN ADVANCE OF A SCHEDULED API STANDARD 653 OR STI SP001-00 INTERNAL INSPECTION, UNLESS THE DEPARTMENT IS NOTIFIED AND APPROVES AN EMERGENCY INSPECTION. NOTIFICATION OF THE INSPECTION SHALL BE ON FORM EQP3893 FOUND IN APPENDIX “A” PROVIDED BY THE DEPARTMENT.
(B) PERFORM ROUTINE IN-SERVICE INSPECTIONS UNDER API STANDARD 653 OR STI SP001-00 AND MAINTAIN RECORDS ON FILE FOR 3 YEARS.
(C) TESTING AND INSPECTION RECORDS, INSPECTOR RECOMMENDATIONS, AND ACTIONS UNDERTAKEN TO ADDRESS STRUCTURAL INTEGRITY ISSUES AND RECOMMENDATIONS SHALL BE RETAINED FOR THE LIFE OF THE TANK AND SHALL BE ACCESSIBLE TO THE DEPARTMENT.
(D) ANY REPAIRS RELATED TO THE STRUCTURAL INTEGRITY OF THE TANK, WHICH ARE RECOMMENDED BY THE API STANDARD 653 OR STI SP001-00 CERTIFIED INSPECTOR SHALL

BE ADDRESSED IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF THESE RULES AND IN ACCORDANCE WITH API STANDARD 653 OR STI SP001-00. THE OPERATOR MAY UTILIZE ALTERNATE REPAIR METHODS ACCEPTABLE TO THE DEPARTMENT IF THEY ARE EQUALLY EFFECTIVE AT MITIGATING THE IDENTIFIED DEFECT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. INSPECTIONS, REPORTS, AND REPAIR RECORDS SHALL BE RETAINED FOR THE LIFE OF THE TANK.

(E) ALL API STANDARD 653 OR STI SP001-00 CERTIFIED INSPECTOR REPORTS SHALL INCLUDE A COMPLETE ASSESSMENT OF THE TOTAL SURFACE OF THE TANK BOTTOM USING A METHOD OF THICKNESS MEASUREMENT OR BE CITED IN THE API STANDARD 653 OR STI SP001-00 STANDARDS BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

(F) INTERNAL TANK INSPECTION SHALL BE SUMMARIZED ON FORM EQP3896 FOUND IN APPENDIX "A" PROVIDED BY THE DEPARTMENT. THE FORM SHALL BE SUBMITTED TO THE DEPARTMENT WITHIN 60 DAYS OF COMPLETION OF THE INSPECTION.

2.3.2.7.2(C) FOR TANK SYSTEMS IN WHICH THE BOTTOM OR WALLS OF THE TANK HAVE BEEN INTERNALLY LINED BEFORE TO THE EFFECTIVE DATE OF THESE RULES, ALL OF THE FOLLOWING PROVISIONS SHALL BE COMPLIED WITH:

(A) WITHIN 10 YEARS OF THE INTERNAL LINING, AND EVERY 5 YEARS THEREAFTER, THE LINED TANK SHALL BE INTERNALLY INSPECTED AND FOUND TO BE STRUCTURALLY SOUND WITH THE LINING STILL BONDED TO THE TANK AND PERFORMING IN ACCORDANCE WITH THE ORIGINAL DESIGN SPECIFICATIONS.

(B) PERSONNEL SHALL BE CERTIFIED IN NONDESTRUCTIVE TESTING, LEVEL I COMPETENCE, IN ACCORDANCE WITH THE GUIDELINES SPECIFIED BY THE AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING ENTITLED "RECOMMENDED PRACTICE NO. SNT-TC-1A, PERSONNEL QUALIFICATION AND CERTIFICATION IN NONDESTRUCTIVE TESTING," ADOPTED BY REFERENCE IN SECTION 7.1.2.12, INCLUDING BEING CERTIFIED IN ADMINISTERING TRAINING TO, AND EXAMINING AND RETESTING, PERSONNEL FOR CERTIFICATION OF TANK ENTRY, SURFACE PREPARATION, INSPECTION, ULTRASONIC THICKNESS GAUGING, MANWAY CLOSURE, AND TESTING.

(C) EQUIPMENT USED FOR ULTRASONIC THICKNESS GAUGING SHALL HAVE A MINIMUM MEASUREMENT RANGE OF 0.50 INCHES (13 MILLIMETERS) TO 2 INCHES (51 MILLIMETERS) AND A MINIMUM RESOLUTION OF 0.002 INCHES (.05 MILLIMETERS).

(D) AFTER THE TANK HAS BEEN EMPTIED, THE INTERNAL TANK SURFACES SHALL BE CLEANED AS REQUIRED FOR THE USE OF ULTRASONIC THICKNESS GAUGING.

(E) FOR GAUGING MEASUREMENT CONTROL, TANK WALLS AND BOTTOM SHALL BE DIVIDED INTO SECTIONS. MEASUREMENTS FOR TANK WALLS SHALL BE DIVIDED INTO 3 FOOT (.9 METERS) BY 3 FOOT (.9 METERS) SECTIONS BEGINNING AT THE BOTTOM OF THE TANK AND EXTENDING OUTWARD ALONG THE TANK CIRCUMFERENCE AND ALONG THE TANK LENGTH. ANY ADDITIONAL AREA OF THE TANK WALL THAT IS LESS THAN 3 FOOT (.9 METERS) BY 3 FOOT (.9 METERS) SHALL BE MEASURED AND TREATED AS AN ADDITIONAL SECTION. MEASUREMENTS FOR TANK BOTTOMS SHALL DIVIDE THE TANK BOTTOM INTO 4 EQUAL DIVISIONS BY ESTABLISHING HORIZONTAL AND VERTICAL DIAMETER LINES AS AXES. EACH DIVISION SHALL BE DIVIDED INTO 3 FEET (.9 METERS) BY 3 FEET (.9 METERS) SECTIONS BEGINNING AT THE CENTER POINT AND EXTENDING

OUTWARD ON EACH AXIS LINE. ANY ADDITIONAL AREA OF THE TANK BOTTOM THAT IS LESS THAN 3 FEET (.9 METERS) BY 3 FEET (.9 METERS) SHALL BE MEASURED AND TREATED AS AN ADDITIONAL SECTION.

(F) SECTION GAUGING. THICKNESS GAUGING MEASUREMENTS SHALL BE TAKEN IN THE CENTER OF EACH SECTION OF THE TANK WALL AND BOTTOM. THICKNESS READINGS OF 75% OR LESS THAN THE ORIGINAL WALL THICKNESS SPECIFIED IN UNDERWRITERS LABORATORIES STANDARD 142 (UL 142), ADOPTED BY REFERENCE IN SECTION 7.1.2.8, SHALL REQUIRE FURTHER GAUGING PRESCRIBED. FOR READINGS OF MORE THAN 75% OF THE ORIGINAL WALL THICKNESS, AS SPECIFIED IN UL 142, SHALL BE REPORTED AS THE AVERAGE WALL THICKNESS FOR THE SECTION.

(G) GAUGING SECTION SUBDIVISIONS. SECTIONS THAT HAVE A CENTER GAUGE MEASUREMENT OF 75% OR LESS THAN THE ORIGINAL WALL THICKNESS AS SPECIFIED IN UL 142 SHALL BE SUBDIVIDED INTO 9 EQUAL SUBDIVISIONS. THICKNESS GAUGING FOR EACH OF THE SUBDIVISIONS SHALL BE TAKEN AT THE CENTER OF EACH SUBDIVISION. THE SUBDIVISION THICKNESS READINGS SHALL THEN BE AVERAGED TO GET THE AVERAGE WALL THICKNESS FOR THE SECTION.

(H) THIN WALL TARGET AREA GAUGING. AREAS THAT HAVE THICKNESS GAUGING MEASUREMENTS THAT ARE LESS THAN 50% OF THE ORIGINAL WALL THICKNESS AS SPECIFIED IN UL 142 SHALL EACH RECEIVE 8 ADDITIONAL READINGS. FOUR OF THE 8 READINGS SHALL BE EQUALLY SPACED READINGS AND EACH OF THE 4 READINGS SHALL BE AT A 1 1/2 INCH (38 MILLIMETERS) RADIUS FROM THE INITIAL READING. THE 4 OTHER READINGS SHALL BE EQUALLY SPACED READINGS EACH AT A 3-INCH (76 MILLIMETERS) RADIUS FROM THE INITIAL READING. THE AVERAGE OF THE 8 READINGS SHALL BE REPORTED AS THE AVERAGE READING OF THE THIN WALL TARGET AREAS.

(I) AVERAGE TANK WALL THICKNESS. THE AVERAGE TANK WALL THICKNESS SHALL BE ESTABLISHED BY AVERAGING ALL OF THE SECTION THICKNESSES REPORTED. THICKNESS GAUGE READINGS SHALL BE REPORTED ON AN ULTRASONIC THICKNESS GAUGING REPORT FORM THAT CONFORMS TO THE REQUIREMENTS OF SUBDIVISIONS (E) THROUGH (I) OF THIS SECTION.

(J) THE OWNER, OPERATOR, OR DESIGNATED INTERNAL ASSESSMENT COMPANY SHALL NOTIFY THE DEPARTMENT OF ALL TANK LINER INSPECTIONS NOT LESS THAN 15 DAYS BEFORE THE SCHEDULED INSPECTION ON FORM EQP3893 FOUND IN APPENDIX “A” PROVIDED BY THE DEPARTMENT.

(K) THE LINING THICKNESS SHALL BE A MINIMUM OF 100-MIL DRY FILM THICKNESS OR GREATER. IN ADDITION, THE LINING HARDNESS SHALL BE TESTED USING A BARCOL HARDNESS TESTER, GYZJ 935, TO DETERMINE THAT THE LINING HAS MAINTAINED A HARDNESS THAT MEETS THE MANUFACTURER’S SPECIFICATIONS FOR THE PRODUCT STORED.

(L) THE INSPECTING COMPANY SHALL PROVIDE THE OWNER OR OPERATOR WITH A COMPLETE REPORT OF THE LINING AND TANK EVALUATION, INCLUDING THE ITEMS SPECIFIED IN SUBDIVISIONS (A) THROUGH (K) OF THIS SECTION. THE CERTIFIED ULTRASONIC TESTING INSPECTOR SHALL SIGN AND DATE THE INTERNAL INSPECTION REPORT.

(M) A CORROSION PROTECTION SYSTEM SHALL BE INSTALLED ON THE EXTERIOR TANK BOTTOM AS REQUIRED IN SECTION 2.2.6.1.3. IN ADDITION, OVERFILL AND SPILL PROTECTION SHALL BE ADDED IN COMPLIANCE WITH SECTIONS 2.6.1.5 AND 2.6.1.6.

2.3.2.7.3 SHOP-FABRICATED TANKS NOT ON-GRADE. WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, ALL ABOVEGROUND SHOP-FABRICATED STORAGE TANKS, WHICH ARE 50,000 GALLONS (190,000 LITERS) OR LESS IN SIZE AND WHICH ARE NOT ON-GRADE SHALL COMPLY WITH THE OVERFILL AND SPILL REQUIREMENTS OF SECTIONS 2.6.1.1 THROUGH 2.6.1.6. IN ADDITION, WITHIN 10 YEARS OF THE EFFECTIVE DATE OF THESE RULES, AN OWNER OR OPERATOR SHALL BE IN COMPLIANCE WITH 1 OF THE FOLLOWING PROVISIONS:

(A) A STI SP001-00 INSPECTION SHALL BE PERFORMED BY A STI SP001-00 CERTIFIED INSPECTOR. THE INSPECTION SHALL DETERMINE THAT THE TANK WALL AND HEAD THICKNESSES EXCEED THE MINIMUM ALLOWABLE THICKNESSES UNDER THE STI SP001-00. A SUBSEQUENT STI SP001-00 INSPECTION SHALL BE CONDUCTED AT LEAST ONCE EVERY 10 YEARS.

(B) LIQUID-TIGHT SECONDARY CONTAINMENT , WHICH MEETS THE REQUIREMENTS OF SECTIONS 2.3.2.3.1, 2.3.2.3.2, OR 2.3.2.3.3.

(C) PROVIDE OTHER SECONDARY CONTAINMENT METHODS AS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

(D) REPLACE THE EXISTING TANK WITH A NEW SECONDARY CONTAINMENT TANK THAT MEETS ALL OF THE REQUIREMENTS OF THESE RULES.

2.3.2.7.3(A) WITHIN 10 YEARS OF THE EFFECTIVE DATE OF THESE RULES, IF THE REQUIREMENTS OF SECTION 2.3.2.7.3 HAVE NOT BEEN MET OR THE TANK HAS NOT BEEN PERMANENTLY CLOSED UNDER SECTION 2.6.4.1, THE TANK IS SUBJECT TO THE PROVISIONS OF SECTION 1.10.

2.3.2.7.3(B) ALL PERSONS UTILIZING STI SP001-00 TO COMPLY WITH THIS SECTION SHALL DO ALL THE FOLLOWING:

(A) NOTIFY THE DEPARTMENT, NOT LESS THAN 15 DAYS IN ADVANCE OF A SCHEDULED STI SP001-00 INTERNAL INSPECTION, UNLESS THE DEPARTMENT IS NOTIFIED AND APPROVES AN EMERGENCY INSPECTION. NOTIFICATION OF THE INSPECTION SHALL BE ON FORM EQP3893 FOUND IN APPENDIX “A” PROVIDED BY THE DEPARTMENT.

(B) PERFORM ROUTINE SERVICE INSPECTIONS UNDER THE STI SP001-00 AND MAINTAIN RECORDS ON FILE FOR NOT LESS THAN 3 YEARS.

(C) TESTING AND INSPECTION RECORDS, INSPECTOR RECOMMENDATIONS, AND ACTIONS UNDERTAKEN TO ADDRESS STRUCTURAL INTEGRITY ISSUES AND RECOMMENDATIONS SHALL BE RETAINED FOR THE LIFE OF THE TANK AND SHALL BE ACCESSIBLE TO THE DEPARTMENT.

(D) ANY REPAIRS RELATED TO THE STRUCTURAL INTEGRITY OF THE TANK THAT ARE RECOMMENDED BY THE STI SP001-00 CERTIFIED INSPECTOR SHALL BE ADDRESSED IN A MANNER CONSISTENT WITH THE REQUIREMENTS OF THESE RULES AND IN ACCORDANCE WITH STI SP001-00. THE OWNER OR OPERATOR MAY UTILIZE ALTERNATE REPAIR METHODS ACCEPTABLE TO THE DEPARTMENT IF THEY ARE EQUALLY EFFECTIVE AT MITIGATING THE IDENTIFIED DEFECT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH,

SAFETY, AND WELFARE AND THE ENVIRONMENT. INSPECTIONS, REPORTS, AND REPAIR RECORDS SHALL BE RETAINED FOR THE LIFE OF THE TANK.
(E) ALL STI SP001-00 CERTIFIED INSPECTOR RECORDS SHALL INCLUDE A COMPLETE ASSESSMENT OF THE TOTAL SURFACE OF THE TANK BY A METHOD OF THICKNESS MEASUREMENT CITED IN STI SP001-00 OR BE ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
(F) INTERNAL TANK INSPECTION SHALL BE SUMMARIZED ON FORM EQP3896 FOUND IN APPENDIX "A" PROVIDED BY THE DEPARTMENT. THE FORM SHALL BE SUBMITTED TO THE DEPARTMENT WITHIN 60 DAYS OF COMPLETION OF THE INSPECTION.

R 29.5222 INSTALLATION OF UNDERGROUND TANKS.
RULE 222. SECTIONS 2.3.3.1 AND 2.3.3.5.1 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.3.3.1.1, 2.3.3.1.2, 2.3.3.1.3, AND 2.3.3.4.5(A) ARE ADDED TO THE FL/CL CODE, AND SECTION 2.3.3.5.2 OF THE FL/CL CODE IS DELETED AS FOLLOWS:
2.3.3.1 EXCAVATION FOR AN UNDERGROUND STORAGE TANK SHALL BE MADE WITH DUE CARE TO AVOID UNDERMINING THE FOUNDATION OF EXISTING STRUCTURES. TANKS SHALL NOT BE INSTALLED AT A LOCATION WHERE LOADS FROM ADJACENT STRUCTURES OF ANY KIND CAN BE TRANSMITTED TO THE TANK. A STRUCTURE OR FOUNDATION OF A STRUCTURE SHALL NOT BE ERECTED OR CONSTRUCTED WITHIN 10 FEET (3 METERS) FROM ANY POINT ON THE TANK SURFACE, UNLESS THE FOOTINGS EXTEND TO THE BOTTOM OF THE TANK. THE DISTANCE FROM ANY PART OF THE TANK THAT STORES LIQUID TO THE NEAREST WALL OF ANY BASEMENT, PIT, OR PROPERTY LINE SHALL NOT BE LESS THAN 10 FEET (3 METERS).
2.3.3.1.1 AN UNDERGROUND STORAGE TANK SYSTEM SHALL NOT BE INSTALLED WITHIN THE FOLLOWING DISTANCES OF THE FOLLOWING ITEMS:
(A) FIFTY FEET (15.2 METERS) FROM A SINGLE-FAMILY DRINKING WATER WELL, AS DEFINED IN PART 127 OF 1978 PA 368, MCL 333.12701 ET SEQ., AND RULES PROMULGATED UNDER PART 127 OF 1978 PA 368.
(B) SEVENTY-FIVE FEET (22.5 METERS) FROM A TYPE IIB NON-COMMUNITY OR TYPE III PUBLIC DRINKING WATER WELL, AS DEFINED IN 1976 PA 399, MCL 325.1001 ET SEQ., AND RULES PROMULGATED PURSUANT TO 1976 PA 399.
(C) TWO-HUNDRED FEET (61 METERS) FROM A TYPE I COMMUNITY OR TYPE IIA NON-COMMUNITY PUBLIC DRINKING WATER WELL, AS DEFINED IN 1976 PA 399, MCL 325.1001 ET SEQ., AND RULES PROMULGATED PURSUANT TO 1976 PA 399.
2.3.3.1.2 SINGLE-WALL USTS SHALL BE KEPT MORE THAN 300 FEET (92 METERS) FROM SINGLE-FAMILY DRINKING WATER WELLS, 800 FEET (244 METERS) FROM TYPE IIB AND III NON-COMMUNITY DRINKING WATER WELLS, 2,000 FEET (610 METERS) FROM TYPE I COMMUNITY AND TYPE IIA NON-COMMUNITY DRINKING WATER WELLS. SINGLE-WALLED STORAGE TANKS SHALL NOT BE INSTALLED IN A DELINEATED WELLHEAD PROTECTION AREA. SECONDARILY CONTAINED USTS MAY BE INSTALLED IN THESE AREAS.
2.3.3.1.3 THE REQUIREMENTS OF SUBSECTIONS 2.3.3.1.1(D) AND 2.3.3.1.2 MAY BE MODIFIED IF A PERSON CAN DEMONSTRATE THAT THE UNDERGROUND STORAGE TANK

INSTALLATION IS, OR IS NOT, WITHIN A SOURCE WATER PROTECTION AREA, WELLHEAD PROTECTION AREA, OR WELLHEAD ZONE OF INFLUENCE BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
2.3.3.4.5(A) SPILL PROTECTION SHALL BE PROVIDED AROUND THE FILL CONNECTIONS TO MINIMIZE THE POSSIBILITY OF RELEASES INTO THE SUBSURFACE SOILS, GROUND WATER, AND SURFACE WATER.
2.3.3.5.1 WHEN SUBJECT TO FLOODING, HIGH WATER TABLE, OR OTHER BUOYANT FORCES, EACH TANK SHALL BE SAFEGUARDED FROM MOVEMENT BY ANCHORING OR OTHER MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
2.3.3.5.2 DELETED.

R 29.5223 STORAGE TANK BUILDINGS.
RULE 223. SECTIONS 2.3.4.1, 2.3.4.4.1, 2.3.4.4.4, 2.3.4.5.2, 2.3.4.5.6, AND 2.3.4.10.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
2.3.4.1. SCOPE. SUBSECTION 2.3.4 SHALL APPLY TO INSTALLATION OF TANKS STORING CLASS I, CLASS II, AND CLASS IIIA LIQUIDS IN STORAGE TANK BUILDINGS. TANKS STORING CLASS IIIB LIQUIDS SHALL NOT BE REQUIRED TO COMPLY WITH THE PROVISIONS OF THE SUBSECTION. A TANK INSTALLATION THAT HAS A CANOPY OR ROOF SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND HAVE PRIOR APPROVAL BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THIS CANOPY OR ROOF SHALL NOT LIMIT THE DISSIPATION OF HEAT OR DISPERSION OF FLAMMABLE VAPORS AND CANNOT RESTRICT FIREFIGHTING ACCESS AND CONTROL.
2.3.4.4.1 VENTILATION OF TANK BUILDINGS. STORAGE TANK BUILDINGS STORING CLASS I LIQUIDS, OR CLASS II OR CLASS IIIA LIQUIDS AT TEMPERATURES ABOVE THEIR FLASH POINTS SHALL BE VENTILATED AT A RATE SUFFICIENT TO MAINTAIN THE CONCENTRATION OF VAPORS WITHIN THE BUILDING AT OR BELOW 25% OF THE LOWER FLAMMABLE LIMIT. COMPLIANCE WITH SECTIONS 2.3.4.4.2 THROUGH 2.3.4.4.5 SHALL BE DEEMED AS MEETING THE REQUIREMENTS OF SECTION 2.3.4.4.1.
2.3.4.4.4 PROVISION SHALL BE MADE FOR INTRODUCTION OF MAKE-UP AIR IN SUCH A MANNER AS TO AVOID SHORT CIRCUITING THE VENTILATION. VENTILATION SHALL BE ARRANGED TO INCLUDE ALL FLOOR AREAS OR PITS WHERE FLAMMABLE VAPORS CAN COLLECT. WHERE NATURAL VENTILATION IS INADEQUATE, MECHANICAL VENTILATION SHALL BE PROVIDED AND SHALL BE KEPT IN OPERATION WHILE FLAMMABLE LIQUIDS ARE BEING HANDLED. LOCATION OR SPOT VENTILATION, IF PROVIDED, SHALL BE PERMITTED TO BE USED FOR UP TO 75% OF THE REQUIRED VENTILATION.
2.3.4.5.2 DRAINAGE FROM TANK BUILDINGS. A FACILITY SHALL BE DESIGNED AND OPERATED TO PREVENT THE DISCHARGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS TO PUBLIC WATERWAYS, PUBLIC SEWERS, OR ADJOINING PROPERTY.
2.3.4.5.6 EMERGENCY DRAINAGE SYSTEMS, IF CONNECTED TO PUBLIC SEWERS OR DISCHARGED INTO SURFACE WATER, SHALL BE EQUIPPED WITH TRAPS OR SEPARATORS. THESE PROPERLY DESIGNED TRAPS, SEPARATORS, HOLDING TANKS, OR OTHER APPROVED MEANS SHALL BE MAINTAINED ACCORDING TO THE MANUFACTURER'S

OPERATING INSTRUCTIONS BY THE OWNER OR OPERATOR AND SHALL BE EMPTIED OF ACCUMULATED PRODUCT BEFORE REACHING SAFE STORAGE CAPACITY.
2.3.4.10.2 DETECTION AND ALARM FOR TANKS INSIDE TANK BUILDINGS. AREAS THAT INCLUDE BUILDINGS WHERE THE POTENTIAL EXISTS FOR A FLAMMABLE LIQUID SPILL SHALL BE MONITORED AS APPROPRIATE. MONITORING METHODS SHALL INCLUDE BOTH OF THE FOLLOWING:
(A) PERSONAL OBSERVATION OR PATROL.
(B) MONITORING EQUIPMENT THAT INDICATES A SPILL OR LEAK HAS OCCURRED IN AN UNATTENDED AREA.

R 29.5224 TESTING REQUIREMENTS FOR TANKS.
RULE 224. SECTION 2.4.2 OF THE FL/CL CODE IS DELETED AND SECTIONS 2.4.3.1, 2.4.3.2, 2.4.3.3, AND 2.4.3.4 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
2.4.2 EXCEPTION. DELETED.
2.4.3.1 THE TANK TIGHTNESS TESTING FOR USTS SHALL BE CAPABLE OF DETECTING A 0.1 GALLON (.4 LITERS) PER HOUR LEAK RATE OR ANOTHER TEST OF EQUIVALENT PERFORMANCE FOR ANY PORTION OF THE TANK WHILE ACCOUNTING FOR THE EFFECTS OF ALL OF THE FOLLOWING:
(A) THERMAL EXPANSION OR CONTRACTION OF THE PRODUCT.
(B) VAPOR POCKETS.
(C) TANK DEFORMATION.
(D) EVAPORATION OR CONDENSATION.
(E) THE LOCATION OF THE WATER TABLE.
2.4.3.2 TANK TIGHTNESS TESTING FOR AN ABOVEGROUND STORAGE TANK SHALL BE CONDUCTED BY EITHER OF THE FOLLOWING:
(A) BY A METHOD APPROVED BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE METHOD UTILIZED SHALL ACCOUNT FOR THE EFFECTS OF ALL OF THE FOLLOWING:
(I) THERMAL EXPANSION OR CONTRACTION OF THE PRODUCT.
(II) VAPOR POCKETS.
(III) TANK DEFORMATION.
(IV) EVAPORATION OR CONDENSATION.
(V) THE LOCATION OF THE WATER TABLE.
A GUIDE TO LEAK DETECTION FOR ABOVEGROUND STORAGE TANKS CAN BE FOUND IN ASSOCIATED PETROLEUM INDUSTRIES, PUBLICATION 334, ADOPTED BY REFERENCE IN SECTION 7.1.2.1.
(B) BY A VISUAL INSPECTION OF ALL EXTERIOR SURFACES OF THE TANK AND WHERE A TANK IS INSTALLED ON-GRADE, A VISUAL AND PHYSICAL INSPECTION OF THE INTERIOR SURFACE OF THE TANK. THE INTERIOR SURFACE OF THE TANK INSTALLED ON OR BELOW-GRADE, SHALL BE CLEANED SO THAT ANY HOLE THROUGH WHICH LIQUID MAY FLOW IS CAPABLE OF BEING DETECTED.
2.4.3.3 THE DEPARTMENT HAS THE AUTHORITY TO DISAPPROVE ANY EXISTING OR FUTURE TESTING DEVICE OR PROCEDURE USED UNDER SECTIONS 2.4.3.1 AND 2.4.3.2 BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE DEPARTMENT MAY PROHIBIT A PERSON FROM PERFORMING TANK

TIGHTNESS TESTING IF THAT PERSON DOES NOT CONDUCT TESTING IN ACCORDANCE WITH THE TESTING DEVICE MANUFACTURER'S OPERATING PROCEDURES AND INSTRUCTIONS.

2.4.3.4 IF THE TIGHTNESS TEST OR THE PRESENCE OF A RELEASE IS THE REASON TO SUSPECT TANK LEAKAGE, THE DEPARTMENT MAY REQUIRE, AT THE EXPENSE OF THE OWNER OR OPERATOR, A SITE ASSESSMENT OF THE AREA SURROUNDING THE SUSPECT TANK. IN PERFORMING THE SITE ASSESSMENT, THE OWNER OR OPERATOR SHALL TAKE INTO CONSIDERATION THE NATURE OF THE STORED SUBSTANCE, THE SAMPLE TYPE, SAMPLE LOCATIONS, SOIL TYPE, DEPTH TO GROUNDWATER, AND OTHER FACTORS APPROPRIATE FOR IDENTIFYING THE PRESENCE, AND SOURCE OF THE RELEASE.

R 29.5225 FIRE PREVENTION AND CONTROLS.

RULE 225. CONTROL OF IGNITION SOURCES. SECTION 2.5.3.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

2.5.3.2 SMOKING SHALL BE PERMITTED ONLY IN DESIGNATED AND PROPERLY IDENTIFIED AREAS. "NO SMOKING" SIGNS SHALL BE CONSPICUOUSLY POSTED WHERE A HAZARD FROM FLAMMABLE VAPORS MAY BE PRESENT.

R 29.5226 OPERATION AND MAINTENANCE OF TANKS.

RULE 226. SECTION 2.6.1.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 2.6.1.5 AND 2.6.1.6 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

2.6.1.1 ABOVEGROUND TANKS AT TERMINALS THAT RECEIVE AND TRANSFER CLASS I LIQUIDS FROM MAINLINE PIPELINES OR MARINE VESSELS SHALL MEET THE REQUIREMENTS OF SECTIONS 5J THROUGH 5O OF 1941 PA 207, MCL 29.5J TO MCL 29.5O AND SHALL FOLLOW FORMAL WRITTEN PROCEDURES TO PREVENT OVERFILLING OF TANKS UTILIZING ONE OF THE FOLLOWING METHODS OF PROTECTION:

(A) TANKS SHALL BE GAUGED AT FREQUENT INTERVALS BY PERSONNEL ON THE PREMISES DURING PRODUCT RECEIPT WITH FREQUENT COMMUNICATION MAINTAINED WITH THE SUPPLIER SO FLOW CAN BE PROMPTLY SHUT DOWN OR DIVERTED.

(B) TANKS SHALL BE EQUIPPED WITH A HIGH-LEVEL DETECTION DEVICE THAT IS INDEPENDENT OF ANY GAUGING EQUIPMENT. THE ALARM SHALL BE LOCATED WHERE PERSONNEL, WHO ARE ON DUTY THROUGHOUT PRODUCT TRANSFER CAN PROMPTLY ARRANGE FOR FLOW STOPPAGE OR DIVERSION.

(C) TANKS SHALL BE EQUIPPED WITH AN INDEPENDENT HIGH-LEVEL DETECTION SYSTEM THAT WILL AUTOMATICALLY SHUT DOWN OR DIVERT FLOW.

(D) ALTERNATIVE TO THE INSTRUMENTATION DESCRIBED IN SECTIONS 2.6.1.1(B) AND (C) WHERE APPROVED BY THE DEPARTMENT AS AFFORDING EQUIVALENT PROTECTION BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

2.6.1.5 AN ABOVEGROUND TANK, NOT COVERED UNDER SECTION 2.6.1.1, SHALL BE EQUIPPED WITH MEANS THAT ARE ACCESSIBLE TO THE DELIVERY OPERATOR FOR DETERMINING THE LIQUID LEVEL IN THE TANK. PROVISIONS SHALL BE MADE TO EITHER AUTOMATICALLY STOP THE DELIVERY OF THE LIQUID TO THE TANK WHEN THE LIQUID

LEVEL IN THE TANK REACHES 95% OF THE CAPACITY OF THE TANK OR SOUND AN AUDIBLE ALARM WHEN THE TANK REACHES 90% OF THE CAPACITY OF THE TANK.
2.6.1.6 THE AREA THAT SURROUNDS THE FILL PIPE OR THE LIQUID TRANSFER CONNECTION OF ANY STORAGE TANK SHALL HAVE SPILL CONTAINMENT THAT WILL PREVENT RELEASE OF LIQUID INTO THE ENVIRONMENT WHEN THE TRANSFER HOSE IS DETACHED FROM THE FILL PIPE OR THE TRANSFER CONNECTION.

R 29.5227 IDENTIFICATION AND SECURITY.
RULE 227. SECTION 2.6.2.3 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
2.6.2.3 EACH ABOVEGROUND TANK THAT IS USED TO STORE LIQUIDS SHALL BE LABELED ACCORDING TO 1 OF THE FOLLOWING PROVISIONS:
(A) DEPENDING UPON THE CLASSIFICATION OF THE LIQUID IN THE TANK, EITHER "FLAMMABLE LIQUIDS – KEEP FIRE AWAY" OR "COMBUSTIBLE LIQUIDS – KEEP FIRE AWAY," SHALL BE DISPLAYED IN LETTERS THAT ARE NOT LESS THAN 3-INCHES (76 MILLIMETERS) IN HEIGHT.
(B) NATIONAL FIRE PROTECTION PAMPHLET NO. 704, STANDARD SYSTEM FOR THE IDENTIFICATION OF FIRE HAZARDS OF MATERIALS, 1996 EDITION, ADOPTED BY REFERENCE IN SECTION 7.1.1.

R 29.5228 TEMPORARY OR PERMANENT REMOVAL FROM SERVICE OF ABOVEGROUND TANKS.
RULE 228. SECTIONS 2.6.4.1, 2.6.4.2, AND 2.6.4.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
2.6.4.1 CLOSURE OF ABOVEGROUND STORAGE TANKS. TANKS THAT ARE NO LONGER IN USE SHALL BE CLOSED. TO PERMANENTLY CLOSE AN ABOVEGROUND STORAGE TANK THAT IS NO LONGER NEEDED TO STORE REGULATED SUBSTANCE, THE OWNER OR OPERATOR SHALL NOTIFY THE DEPARTMENT, NOT LESS THAN 30 DAYS IN ADVANCE OF THE INTENDED CLOSURE, ON FORM EQP3858 FOUND IN APPENDIX "A" PROVIDED BY THE DEPARTMENT. TO PROPERLY CLOSE AN ABOVEGROUND STORAGE TANK, THE OWNER OR OPERATOR SHALL EMPTY AND CLEAN THE TANK OF ALL LIQUID AND SLUDGE, RENDER IT VAPOR-FREE, AND SAFEGUARD IT AGAINST TRESPASSING. PIPING THAT IS PERMANENTLY REMOVED FROM SERVICE SHALL BE EMPTIED OF ALL LIQUIDS AND SLUDGE, BE PURGED AND CAPPED, OR BE REMOVED FROM THE GROUND.
2.6.4.2 EACH USED TANK THAT IS TO BE REUSED FOR LIQUID AT THE ORIGINAL LOCATION OR A NEW LOCATION SHALL BE IN COMPLIANCE WITH ALL THE REQUIREMENTS FOR THE INSTALLATION OF A NEW TANK, AND BE RECERTIFIED BY THE MANUFACTURER OR BY ONE OF THE ACCEPTABLE STANDARDS.
2.6.4.3 UPON CLOSURE OF AN ABOVEGROUND STORAGE TANK, VISIBLE OR OLFACTORY OR ANALYTICAL EVIDENCE OF A FLAMMABLE OR COMBUSTIBLE LIQUID BENEATH OR SURROUNDING THE TANK SYSTEM CONSTITUTES A RELEASE AS DEFINED IN SECTION 20101(1)(BB) OF 1994 PA 451, MCL 324.20101 ET SEQ., AND IS SUBJECT TO THE PROVISIONS IN SECTION 2.3.2.3.

R 29.5229 TEMPORARY OR PERMANENT REMOVAL FROM SERVICE OF UNDERGROUND TANKS.

RULE 229. SECTIONS 2.6.5.3, 2.6.5.4, 2.6.5.6, 2.6.5.7, 2.6.5.8, AND 2.6.5.9 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 2.6.5.4.1 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

2.6.5.3 PERMANENT CLOSURE OF UNDERGROUND STORAGE TANKS. TANKS THAT ARE NO LONGER USED TO STORE LIQUID SHALL BE PERMANENTLY CLOSED. TO PERMANENTLY CLOSE A TANK, THE OWNER OR OPERATOR SHALL NOTIFY THE DEPARTMENT, NOT LESS THAN 30 DAYS BEFORE THE ACTUAL CLOSURE. THE OWNER OR OPERATOR SHALL EMPTY AND CLEAN THE TANK BY REMOVING ALL LIQUIDS AND ACCUMULATED SLUDGE AND PURGE IT OF ALL VAPORS. ALL TANKS THAT ARE TAKEN OUT OF SERVICE PERMANENTLY SHALL ALSO BE EITHER REMOVED FROM THE GROUND OR, WHEN A STRUCTURE ABOVE OR NEAR THE TANKS PREVENTS REMOVAL, FILLED WITH AN INERT SOLID MATERIAL. PIPING THAT IS PERMANENTLY REMOVED FROM SERVICE SHALL BE EMPTIED OF ALL LIQUIDS AND SLUDGE, BE PURGED AND CAPPED, OR BE REMOVED FROM THE GROUND.

2.6.5.4 REMOVAL AND DISPOSAL. UNDERGROUND TANKS SHALL BE REMOVED IN ACCORDANCE WITH ALL OF THE FOLLOWING REQUIREMENTS:

(A) THE STEPS DESCRIBED IN SECTION 2.6.5.3 SHALL BE FOLLOWED.

(B) ALL EXPOSED PIPING, GAUGING AND TANK FIXTURES, AND OTHER APPURTENANCES, INCLUDING THE VENT, SHALL BE DISCONNECTED AND REMOVED.

(C) ALL OPENINGS SHALL BE PLUGGED, LEAVING A ¼ INCH (8 MILLIMETERS) OPENING TO AVOID BUILDUP OF PRESSURE IN THE TANK.

(D) THE TANK SHALL BE REMOVED FROM THE EXCAVATED SITE AND SHALL BE SECURED AGAINST MOVEMENT.

(E) ANY CORROSION HOLES SHALL BE PLUGGED.

(F) THE TANK SHALL BE LABELED WITH ITS FORMER CONTENTS, PRESENT VAPOR STATE, VAPOR-FREEING METHOD, AND A WARNING AGAINST REUSE.

(G) THE TANK SHALL BE REMOVED FROM THE SITE PROMPTLY, PREFERABLY THE SAME DAY.

2.6.5.4.1 UPON CLOSURE OF AN UNDERGROUND STORAGE TANK, A SITE ASSESSMENT SHALL BE PERFORMED THAT MEETS THE REQUIREMENTS OF R 29.2155.

EXCEPTION: THIS DOES NOT APPLY TO FARM AND RESIDENTIAL TANKS THAT HAVE A CAPACITY OF 1,100 GALLONS (4,180 LITERS) OR LESS.

2.6.5.6 DISPOSAL OF TANKS. DISPOSAL OF TANKS SHALL MEET BOTH OF THE FOLLOWING REQUIREMENTS:

(A) BEFORE A TANK IS CUT UP FOR SCRAP OR DISPOSAL, THE ATMOSPHERE IN THE TANK SHALL BE TESTED TO ENSURE THAT IT IS SAFE.

(B) THE TANK SHALL BE MADE UNFIT FOR FURTHER USE BY CUTTING HOLES IN THE TANK HEADS AND SHELL.

2.6.5.7 DOCUMENTATION. ALL NECESSARY DOCUMENTATION SHALL BE MAINTAINED BY THE OWNER OR OPERATOR OF THE REMOVED TANK AND SHALL BE PREPARED AND MAINTAINED IN ACCORDANCE WITH ALL FEDERAL AND STATE RULES AND REGULATIONS.

2.6.5.8 REUSE OF UNDERGROUND TANKS. EACH USED TANK THAT IS TO BE REUSED FOR LIQUID STORAGE AT THE ORIGINAL LOCATION SHALL BE IN COMPLIANCE WITH ALL THE

REQUIREMENTS FOR THE INSTALLATION OF A NEW TANK AND RECERTIFIED BY THE MANUFACTURER OR BY ONE OF THE ACCEPTABLE STANDARDS.
2.6.5.9 CHANGE OF SERVICE FOR UNDERGROUND TANKS. TANKS THAT UNDERGO ANY CHANGE OF STORED PRODUCT SHALL MEET BOTH OF THE FOLLOWING REQUIREMENTS:
(A) TANKS THAT UNDERGO ANY CHANGE OF STORED PRODUCT SHALL MEET THE REQUIREMENTS OF SECTION 2.2 OF THE FL/CL CODE.
(B) TANKS NO LONGER STORING FLAMMABLE OR COMBUSTIBLE LIQUIDS SHALL HAVE A SITE ASSESSMENT PERFORMED THAT MEETS THE REQUIREMENTS OF R 29.2155.
EXCEPTION: THIS DOES NOT APPLY TO FARM OR RESIDENTIAL TANKS THAT HAVE A CAPACITY OF 1,100 GALLONS (4,180 LITERS) OR LESS.

R 29.5230 LEAK DETECTION FOR ABOVEGROUND AND UNDERGROUND TANKS.
RULE 230. SECTIONS 2.6.6.1, 2.6.6.2, AND 2.6.6.2.1 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
2.6.6.1 LEAK DETECTION FOR UNDERGROUND TANKS. A MONTHLY MONITORING METHOD OF RELEASE DETECTION SHALL BE CHOSEN FOR EACH UNDERGROUND STORAGE TANK, IN COMPLIANCE WITH R 29.2125.
2.6.6.2 LEAK DETECTION FOR ABOVEGROUND TANKS. WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES, ACCURATE INVENTORY CONTROL OR AN APPROPRIATE LEAK DETECTION METHOD THAT IS ACCEPTABLE TO THE DEPARTMENT IS REQUIRED FOR ALL ABOVEGROUND STORAGE TANK SYSTEMS THAT ARE IN CONTACT WITH THE GROUND OR HAVE UNDERGROUND PIPING SYSTEMS. THIS LEAK DETECTION METHOD SHALL BE BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.
2.6.6.2.1 INVENTORY RECORDS OR A LEAK DETECTION METHOD IS NOT REQUIRED WHERE ALL SURFACES, OTHER THAN SUPPORT LOCATIONS, OF THE TANK AND PIPING ARE AVAILABLE FOR VISUAL INSPECTION AND ARE INSPECTED ON A MONTHLY BASIS. INSPECTION SHALL BE DOCUMENTED AND REPORTS MAINTAINED FOR NOT LESS THAN 3 YEARS.

R 29.5231 TANK MAINTENANCE.
RULE 231. SECTION 2.6.7.5 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
2.6.7.5 EACH TANK SHALL BE MAINTAINED TO ENSURE THAT WATER IS REMOVED IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS; HOWEVER, NOT MORE THAN 2 INCHES (50 MILLIMETERS) OF WATER SHALL EXIST IN A MOTOR FUELING TANK AT ANY TIME.

R 29.5232 PROTECTION AND CARE OF TANK YARD.
RULE 232. SECTIONS 2.6.8 AND 2.6.9 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
2.6.8 PROTECTION AND CARE OF TANK YARD. THE AREA THAT ENCOMPASSES AN ABOVEGROUND YARD, INCLUDING A DIKE AND ALL ABOVEGROUND PIPING SHALL BE SECURED BY MEANS OF LOCKING VALVES, LOCKING ELECTRICAL CONTROLS FOR PUMPING EQUIPMENT, OR METAL FENCING TO DISCOURAGE TRESPASSING. FENCING SHALL BE INDUSTRIAL CHAIN LINK FENCE THAT IS NOT LESS THAN 6 FEET (1.8 METERS)

HIGH. THE TANK YARD IS NOT REQUIRED TO BE FENCED IF THE PROPERTY THAT SURROUNDS IT IS PROPERLY FENCED.

2.6.9 STAIRWAYS, ATTACHED LADDERS, AND WALKWAYS. STAIRWAYS, ATTACHED LADDERS, AND WALKWAYS ON TOP OF A TANK SHALL BE OF METAL OR CONCRETE CONSTRUCTION. FOR EACH TANK THAT IS NOT EQUIPPED WITH STAIRWAYS OR ATTACHED LADDERS, THE OWNER SHALL HAVE OTHER APPROVED MEANS READILY AVAILABLE WHICH ARE CAPABLE OF PROVIDING SAFE ACCESS TO THE TOP OF EACH TANK.

R 29.5233 GENERAL REQUIREMENTS.

RULE 233. SECTION 3.2.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 3.2.3 AND 3.2.4 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

3.2.2 TIGHTNESS OF PIPING. PIPING SYSTEMS SHALL BE MAINTAINED LIQUIDTIGHT. A PIPING SYSTEM THAT HAS LEAKS SHALL BE EMPTIED OF LIQUID AND REPAIRED IN A MANNER ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTEREST OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

3.2.3 FLEXIBLE CONNECTORS. FLEXIBLE CONNECTORS SHALL BE LISTED AND USED ACCORDING TO THE LISTING AND BE PROVIDED WITH CORROSION PROTECTION WHEN IN CONTACT WITH THE GROUND OR SOIL.

3.2.4 UNDERGROUND PIPING. UNDERGROUND PIPING CONNECTED DIRECTLY TO ABOVEGROUND STORAGE TANKS OR PRESSURIZED UNDERGROUND PIPING SYSTEMS SHALL BE PROVIDED WITH SECONDARY CONTAINMENT, OR A LIQUIDTIGHT PIPE TRENCH TO CONTAIN A RELEASE FROM ANY PORTION OF THE PIPE AND A MONITORING SYSTEM DESIGNED TO DETECT ANY RELEASE.

R 29.5234 MATERIALS FOR PIPING SYSTEMS.

RULE 234. SECTIONS 3.3.4 AND 3.3.5 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

3.3.4 LOW-MELTING MATERIALS. LOW-MELTING POINT MATERIALS, SUCH AS ALUMINUM, COPPER, AND BRASS; MATERIALS THAT SOFTEN ON FIRE EXPOSURE, SUCH AS PLASTICS; OR NONDUCTILE MATERIAL SUCH AS CAST IRON SHALL BE PERMITTED TO BE USED UNDERGROUND WITHIN THE PRESSURE AND TEMPERATURE LIMITATIONS OF ASME B31, CODE FOR PRESSURE PIPING, ADOPTED BY REFERENCE IN SECTION 7.1.2.2. THE MATERIALS SHALL BE PERMITTED TO BE USED OUTDOORS ABOVEGROUND OR INSIDE BUILDINGS IF THEY ARE IN COMPLIANCE WITH ALL OF THE FOLLOWING PROVISIONS:

(A) RESISTANT TO DAMAGE BY FIRE.

(B) LOCATED SO THAT ANY LEAKAGE RESULTING FROM FAILURE WILL NOT UNDULY EXPOSE PERSONS, IMPORTANT BUILDINGS, OR STRUCTURES.

(C) LOCATED WHERE LEAKAGE CAN READILY BE CONTROLLED BY OPERATION OF 1 OR MORE ACCESSIBLE REMOTELY LOCATED VALVES.

THE PIPING MATERIALS CHOSEN SHALL BE COMPATIBLE WITH THE LIQUIDS BEING HANDLED. PIPING SYSTEMS CONSTRUCTED OF MATERIALS COMPATIBLE WITH LIQUIDS BEING HANDLED SHALL BE APPROVED, LISTED, OR LABELED.

3.3.5 LINING MATERIALS. PIPING, VALVES AND FITTINGS SHALL BE PERMITTED TO HAVE COMBUSTIBLE OR NONCOMBUSTIBLE LININGS, IF THE LINING IS COMPATIBLE WITH THE MATERIAL STORED.

R 29.5235 INSTALLATION OF PIPING SYSTEMS.

RULE 235. SECTIONS 3.5.1, 3.5.2, 3.5.3, 3.5.5.2, AND 3.5.5.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

3.5.1 SUPPORTS. A PIPING SYSTEM SHALL BE SUBSTANTIALLY SUPPORTED AND PROTECTED AGAINST PHYSICAL DAMAGE AND EXCESSIVE STRESSES ARISING FROM SETTLEMENT, VIBRATION, EXPANSION, OR CONTRACTION. THE INSTALLATION OF NONMETALLIC PIPING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. SUPPORTS FOR ABOVEGROUND PIPING SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL.

3.5.2 LOAD-BEARING SUPPORTS. LOAD-BEARING SUPPORTS WHICH ARE MORE THAN 12 INCHES (300 MILLIMETERS) ABOVE THE GROUND AND WHICH ARE LOCATED IN AREAS THAT HAVE HIGH FIRE EXPOSURE RISK SHALL BE PROTECTED BY DRAINAGE TO A SAFE LOCATION TO PREVENT LIQUID FROM ACCUMULATING UNDER PIPE-WAYS AND BY ANY OF THE FOLLOWING:

(A) TWO-HOUR FIRE RESISTANT CONSTRUCTION.

(B) TWO-HOUR FIRE RESISTANT PROTECTIVE COATINGS OR SYSTEMS.

(C) WATER SPRAY SYSTEMS DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 15, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION, ADOPTED BY REFERENCE IN SECTION 7.1.1.

(D) OTHER ALTERNATE MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

3.5.3 PIPE PENETRATIONS. PIPING THAT ROUTINELY CONTAINS PRODUCT MAY PENETRATE DIKE WALLS ONLY ABOVE THE CONTAINMENT LEVEL REQUIRED AND SHALL BE PROPERLY MAINTAINED UNDER GOOD ENGINEERING PRACTICES. MONTHLY VISUAL INSPECTIONS SHALL BE CONDUCTED TO ENSURE THE INTEGRITY OF THE DIKE WALLS.

3.5.3.1 PIPING THAT ROUTINELY CONTAINS PRODUCT THAT PENETRATES DIKE WALLS BELOW CONTAINMENT LEVEL SHALL BE SEALED ON BOTH SIDES TO ESTABLISH A LIQUIDTIGHT PENETRATION OF THE WALL. ALL DIKE WALL PENETRATIONS SHALL BE DESIGNED, ENGINEERED, INSTALLED, AND MAINTAINED TO PREVENT EROSION, SETTLING, AND DAMAGE DUE TO VIBRATION. MONTHLY VISUAL INSPECTION SHALL BE PERFORMED TO ENSURE DIKE WALLS ARE MAINTAINED IN THEIR IMPERVIOUS CONDITION.

3.5.5.2 IN AREAS SUBJECT TO VEHICLE TRAFFIC, THE PIPE TRENCH SHALL BE OF SUFFICIENT DEPTH TO PERMIT A COVER OF NOT LESS THAN 18 INCHES (450 MILLIMETERS) OF WELL-COMPACTED BACKFILL MATERIAL AND PAVEMENT.

EXCEPTION 1: IN PAVED AREAS WHERE A MINIMUM OF 8 INCHES (200 MILLIMETERS) OF ASPHALT PAVING IS USED, THE DEPTH OF THE BACKFILL BETWEEN THE TOPMOST TIER OF PIPING AND THE PAVING CAN BE REDUCED TO NOT LESS THAN 8 INCHES (200 MILLIMETERS).

EXCEPTION 2: IN PAVED AREAS WHERE A MINIMUM OF 6 INCHES (150 MILLIMETERS) OF REINFORCED CONCRETE PAVING IS USED, THE DEPTH OF BACKFILL BETWEEN THE

TOPMOST TIER OF THE PIPING AND THE PAVING CAN BE REDUCED TO NOT LESS THAN 4 INCHES (100 MILLIMETERS).
3.5.5.3 IN AREAS NOT SUBJECT TO VEHICLE TRAFFIC, THE PIPE TRENCH SHALL BE OF SUFFICIENT DEPTH TO PERMIT 6 INCHES (150 MILLIMETERS) EACH OF BEDDING AND COVER OF WELL-COMPACTED BACKFILL MATERIAL. A GREATER BURIAL DEPTH SHALL BE PROVIDED WHEN REQUIRED BY THE MANUFACTURER'S INSTRUCTIONS.
PIPING WITHIN THE SAME TRENCH SHALL BE SEPARATED BY 2 PIPE DIAMETERS. PIPING NEED NOT TO BE SEPARATED BY MORE THAN 9 INCHES (225 MILLIMETERS).

R 29.5236 PIPING INSIDE A BUILDING.
RULE 236. SECTIONS 3.5.8.1, 3.5.8.2, AND 3.5.8.3 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
3.5.8.1 EACH PIPE SYSTEM SHALL BE INSTALLED OUTSIDE A BUILDING, ABOVEGROUND OR UNDERGROUND, EXCEPT WHERE MANUFACTURING PROCESSES REQUIRE PRODUCT DELIVERY INTO THE BUILDING.
3.5.8.2 EACH PIPING SYSTEM THAT IS LOCATED IN A BUILDING SHALL BE DESIGNED SO THAT LIQUID WILL NOT CONTINUE TO FLOW BY GRAVITY OR SIPHONING FROM THE STORAGE TANK IF THE PIPING OR FITTINGS BREAK.
3.5.8.3 SUITABLE SHUTOFF VALVES SHALL BE INSTALLED AT STRATEGIC LOCATIONS IN PIPING THAT IS USED FOR LIQUID SO THAT THE FLOW OF LIQUID MAY BE STOPPED AT A TIME OF EMERGENCY, SUCH AS FIRE, LINE LEAKAGE, OR BUILDING COLLAPSE. SHUTOFF VALVES SHALL BE INSTALLED ON THE UPSTREAM SIDE WHERE FIRE SEPARATION WALLS ARE PIERCED, NOT LESS THAN 50 FEET (15 METERS) FROM EACH LIQUID-DISPENSING STATION, AND AT EACH ENTRY POINT INTO THE BUILDING. EACH VALVE SHALL BE PERMANENTLY IDENTIFIED AS TO THE LIQUID THAT THE VALVE CONTROLS. THE OPERATION OF A SHUTOFF VALVE MAY BE AUTOMATIC OR MANUAL, OR BOTH, DEPENDING UPON THE SEVERITY OF THE HAZARD INVOLVED. A SHUTOFF VALVE SHALL BE INSTALLED ON THE SUCTION SIDE OF THE LINES UNDER POSITIVE STATIC HEAD PRESSURE.

R 29.5237 ANTI-SIPHONING DEVICES.
RULE 237. SECTION 3.5.9 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
3.5.9.1 EACH LIQUID WITHDRAWAL LINE THAT GOES THROUGH THE TOP OF THE STORAGE TANK, SHALL BE EQUIPPED WITH AN ANTI-SIPHONING DEVICE OR OTHER MEANS LOCATED AS CLOSE AS POSSIBLE TO THE TOP OF THE TANK.

R 29.5238 PUMP VALVES.
RULE 238. SECTIONS 3.5.10.1 AND 3.5.10.2 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
3.5.10.1 EACH PUMP DELIVERING LIQUID TO, OR WITHDRAWING LIQUID FROM, AN ABOVEGROUND STORAGE TANK SHALL BE PROVIDED WITH A POSITIVE SHUTOFF VALVE ON BOTH SIDES OF THE PUMP.
3.5.10.2 EACH PISTON, ROTARY, OR GEAR PUMP SHALL BE PROVIDED WITH A RELIEF VALVE OR A BYPASS TO PREVENT EXCESSIVE PRESSURE FROM BEING CREATED IN THE PIPING.

R 29.5239 PUMP HOUSES.

RULE 239. SECTIONS 3.5.11.1, 3.5.11.2, 3.5.11.3, 3.5.11.4, AND 3.5.11.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

3.5.11.1 A PUMP THAT HANDLES FLAMMABLE OR COMBUSTIBLE LIQUIDS, OR BOTH, WHEN THEY ARE NOT INSTALLED IN THE OPEN OUTSIDE OF BUILDINGS, SHALL BE LOCATED IN A SEPARATE BUILDING WHICH IS CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND WHICH IS NOT LESS THAN 10 FEET (3 METERS) FROM OTHER BUILDINGS AND PROPERTY LINES.

3.5.11.2 A PUMP THAT IS INSTALLED IN A BUILDING THAT IS USED FOR A PURPOSE OTHER THAN LIQUID HANDLING SHALL BE INSTALLED IN A SEPARATE ROOM THAT IS BUILT IN COMPLIANCE WITH THE PROVISIONS OF SECTION 4.4.2.

3.5.11.3 VENTILATION SHALL BE PROVIDED FOR EACH ROOM, BUILDING, OR ENCLOSURE IN WHICH A LIQUID IS PUMPED OR DISPENSED. THE DESIGN OF THE VENTILATION SYSTEM SHALL TAKE INTO ACCOUNT THE VAPOR DENSITY OF THE LIQUID. VENTILATION MAY BE PROVIDED BY ADEQUATE OPENINGS IN OUTSIDE WALLS AT FLOOR LEVEL AND SHALL BE UNOBSTRUCTED, EXCEPT BY LOUVERS OR COURSE SCREENS. WHERE NATURAL VENTILATION IS IMPRACTICAL OR INADEQUATE, APPROVED MECHANICAL VENTILATION SHALL BE PROVIDED.

3.5.11.4 ARTIFICIAL LIGHTING AND HEATING FOR BUILDINGS AND ROOMS, IF PROVIDED, SHALL BE APPROVED OR LISTED FOR USE IN HAZARDOUS LOCATIONS OR INSTALLED ACCORDING TO NFPA 70, NATIONAL ELECTRIC CODE, 1999 EDITION, ADOPTED BY REFERENCE IN SECTION 7.1.1.

3.5.11.5 ONLY MATERIALS OR EQUIPMENT THAT IS INCIDENTAL TO THE PUMPING OPERATION OF FLAMMABLE OR COMBUSTIBLE LIQUIDS SHALL BE IN THE PUMP HOUSE OR ROOM WHERE THE PUMPS ARE INSTALLED.

R 29.5240 TESTING.

RULE 240. SECTION 3.6.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES; SECTIONS 3.6.4 AND 3.6.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

3.6.1 INITIAL TESTING. UNLESS TESTED IN ACCORDANCE WITH THE APPLICABLE SECTION OF ASME B31, CODE FOR PRESSURE PIPING, ALL PIPING SHALL BE TESTED BEFORE BEING COVERED, ENCLOSED, OR PLACED IN USE FOR THE FIRST TIME OR AFTER TEMPORARY CLOSURE OF A TANK SYSTEM. TESTING SHALL BE DONE HYDROSTATICALLY TO 150% OF THE MAXIMUM ANTICIPATED PRESSURE OF THE SYSTEM OR PNEUMATICALLY TO 110% OF THE MAXIMUM ANTICIPATED PRESSURE OF THE SYSTEM, AND THE TEST PRESSURE SHALL BE MAINTAINED FOR A SUFFICIENT TIME TO CONDUCT A COMPLETE VISUAL INSPECTION OF ALL JOINTS AND CONNECTIONS. THE TEST PRESSURE SHALL NOT BE LESS THAN 5 POUNDS PER SQUARE INCH GAUGE (GAUGE PRESSURE OF 34.5 KILOPASCALS) MEASURED AT THE HIGHEST POINT OF THE SYSTEM, AND THE TEST PRESSURE SHALL NOT BE MAINTAINED FOR LESS THAN 10 MINUTES.

3.6.4 UNDERGROUND PIPING CONNECTED TO AN UNDERGROUND TANK. UPON CLOSURE OF UNDERGROUND PIPING CONNECTED TO AN UNDERGROUND TANK, A SITE ASSESSMENT SHALL BE PERFORMED THAT MEETS THE REQUIREMENTS OF R 29.2155.

EXCEPTION: THIS DOES NOT APPLY TO FARM AND RESIDENTIAL TANKS THAT HAVE A CAPACITY OF 1,100 GALLONS (4,180 LITERS) OR LESS.

3.6.5 FOR A TANK SYSTEM THAT HAS BEEN TEMPORARILY CLOSED FOR 12 MONTHS OR MORE, IMMEDIATELY BEFORE BRINGING A TANK SYSTEM BACK INTO USE, THE OWNERS OR OPERATORS SHALL PERFORM TANK AND PIPING TIGHTNESS TESTING CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS PART TO CONFIRM THAT THE TANK SYSTEM IS TIGHT.

R 29.5241 IDENTIFICATION.

RULE 241. SECTION 3.9 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

3.9 IDENTIFICATION. LOADING AND UNLOADING RISERS SHALL BE IDENTIFIED BY COLOR CODE OR MARKING TO IDENTIFY THE PRODUCT FOR WHICH THE TANK IS USED. IN ADDITION, A TANK THAT STORES CLASS II OR CLASS III LIQUID FOR SALE, AND IN THE SAME IMMEDIATE LOCATION AS A CLASS I LIQUID, SHALL BE PROVIDED WITH SOME POSITIVE MEANS, SUCH AS A DIFFERENT PIPE SIZE, FILL DEVICE, SPECIAL LOCK, OR OTHER METHOD, THAT IS DESIGNED TO PREVENT THE ERRONEOUS DELIVERY OF GASOLINE OR OTHER CLASS I LIQUID INTO A TANK THAT IS USED FOR CLASS II OR CLASS III LIQUID.

R 29.5242 DESIGN, CONSTRUCTION, AND CAPACITY OF STORAGE CABINETS.

RULE 242. SECTION 4.3.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.3.1 NOT MORE THAN 120 GALLONS (454 LITERS) OF CLASS I, CLASS II, AND CLASS IIIA LIQUIDS SHALL BE STORED IN A STORAGE CABINET WITH NOT MORE THAN 60 GALLONS (227 LITERS) BEING CLASS I OR CLASS II LIQUIDS.

R 29.5243 DESIGN AND CONSTRUCTION REQUIREMENTS.

RULE 243. SECTION 4.4.2.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.4.2.5 CURBS, SCUPPERS, SPECIAL DRAINS, OR OTHER SUITABLE MEANS SHALL BE PROVIDED TO PREVENT THE FLOW OF LIQUIDS UNDER EMERGENCY CONDITIONS INTO ADJACENT BUILDING AREAS. IF A DRAINAGE SYSTEM IS USED, IT SHALL HAVE SUFFICIENT CAPACITY TO CARRY THE EXPECTED DISCHARGE OF WATER FROM FIRE PROTECTION SYSTEMS AND HOSE STREAMS TO A SAFE AREA THAT IS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE SAFE AREA SHALL BE CAPABLE OF CONTAINING ANY RELEASED PRODUCT AS WELL AS FIRE PROTECTION LIQUID UNTIL THEY ARE REMOVED AND PROPERLY DISPOSED OF. THE SECONDARY CONTAINMENT SHALL BE CAPABLE OF PREVENTING ANY RELEASE OF LIQUID OR CONTAMINATED WATER FROM REACHING SURFACE WATER, GROUNDWATER, AND SUBSURFACE SOILS.

R 29.5244 OFFICE, EDUCATIONAL, AND INSTITUTIONAL OCCUPANCIES AND DAY CARE CENTERS.

RULE 244. SECTIONS 4.5.5.3 AND 4.5.5.4 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

4.5.5.3. NOT MORE THAN 5 GALLONS (18.9 LITERS) OF CLASS I AND CLASS II LIQUIDS COMBINED SHALL BE STORED IN A SINGLE FIRE AREA OUTSIDE OF A STORAGE CABINET OR AN INSIDE LIQUID STORAGE AREA UNLESS IN SAFETY CANS.
4.5.5.4 NOT MORE THAN 10 GALLONS (37.8 LITERS) OF CLASS I OR CLASS II LIQUIDS COMBINED SHALL BE STORED IN A SINGLE FIRE SAFETY AREA IN SAFETY CANS OUTSIDE OF AN INSIDE LIQUID STORAGE AREA OR STORAGE CABINET.

R 29.5245 MERCANTILE OCCUPANCIES.
RULE 245. SECTION 4.5.6.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
4.5.6.2 THE DISPLAY ARRANGEMENT, STORAGE ARRANGEMENT, AND MAXIMUM TOTAL QUANTITY OF LIQUIDS ALLOWED SHALL MEET THE REQUIREMENTS OF THIS SUBSECTION AND TABLE 4.5.6.2.

Table 4.5.6.2 Allowable Storage and Display Amounts for Mercantile Occupancies[1]

		Liquid Classification		
Level of Protection		IA[2]	IB, IC, II, AND IIIA (Any Combination)	IIIB
Unprotected	Maximum quantity allowed[3]	30 gal	1,600 gal per building area; a maximum of two areas permitted per occupancy when separation is provided by a minimum 1-hour-rated fire separation wall	15,000 gal
	Maximum storage density	2 gal/ft^2 in storage or display areas and adjacent aisles		
NFPA 13, Ordinary Hazard (Group 2) Sprinkler System[4]	Maximum quantity allowed[3]	60 gal	7,500 gal per building area; a maximum of two areas permitted per occupancy when separation is provided by a minimum 1-hour-rated fire separation wall	Unlimited
	Maximum storage density	4 gal/ft^2 in storage or display areas and adjacent aisles		
NFPA 30, Section 4.8	Maximum quantity allowed[3]	60 gal	30,000 gal per occupancy	Unlimited

For SI units, 1 gal = 3.8 L; 1 ft^2 = 0.09m^2.
[1]Existing unprotected mercantile occupancies in operation before January 1, 1997, are permitted to store or display up to 7,500 gal of Class IB, IC, II, and IIIA liquids (any combination) in each area.
[2]Ground level floor only.
[3]Does not include liquids exempted by 4.1.1.

[4]For storage heights that do not exceed 12 ft (3.6m).

R 29.5246 OUTDOOR STORAGE.

RULE 246. SECTION 4.7.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 4.7.6 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

4.7.3 ANY STORAGE AREA THAT CONTAINS THE AGGREGATE CAPACITY OF 1,320 GALLONS (5,000 LITERS) OF FLAMMABLE AND COMBUSTIBLE LIQUID SHALL HAVE IMPERVIOUS SECONDARY CONTAINMENT THAT DIVERTS POSSIBLE SPILLS AWAY FROM BUILDINGS OR OTHER EXPOSURES OR SHALL BE SURROUNDED BY A CURB NOT LESS THAN 6 INCHES (150 MILLIMETERS) HIGH. WHERE CURBS ARE USED, PROVISIONS SHALL BE MADE FOR DRAINING OF ACCUMULATIONS OF GROUNDWATER, RAINWATER, OR SPILLS OF LIQUIDS. DRAINS SHALL TERMINATE AT A SAFE LOCATION AND SHALL BE ACCESSIBLE TO OPERATION UNDER FIRE CONDITIONS. THE SAFE LOCATION SHALL BE CAPABLE OF CONTAINING ANY RELEASED PRODUCT AS WELL AS ANY FIRE PROTECTION LIQUIDS UNTIL THEY ARE REMOVED AND PROPERLY DISPOSED OF. THE SECONDARY CONTAINMENT SHALL BE CAPABLE OF PREVENTING ANY RELEASED PRODUCT OR CONTAMINATED WATER FROM REACHING SURFACE WATER, GROUNDWATER, AND SUBSURFACE SOILS.

4.7.6 CLASS I, CLASS II, AND CLASS IIIA TANKS AND CONTAINERS SHALL BE KEPT CLOSED WHEN NOT IN CONTINUOUS OR INTERMEDIATE USE.

R 29.5247 SCOPE.

RULE 247. SECTION 5.1.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.1.3 PROVISIONS OF THIS CHAPTER SHALL NOT PROHIBIT THE TEMPORARY USE OF UP TO 12 MONTHS FOR MOVEABLE TANKS IN CONJUNCTION WITH THE DISPENSING OF FLAMMABLE OR COMBUSTIBLE LIQUIDS INTO FUEL TANKS OF MOTORIZED EQUIPMENT OUTSIDE ON PREMISES NOT ACCESSIBLE TO THE PUBLIC. SUCH USES SHALL ONLY BE MADE WITH THE APPROVAL OF THE DEPARTMENT. A PAVED DISPENSING AREA AND SECONDARY CONTAINMENT ARE PRIMARY REQUIREMENTS FOR THIS APPROVAL, BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5248 GENERAL.

RULE 248. SECTION 5.2.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.2.2. REQUIREMENTS FOR SPECIFIC OPERATIONS SHALL BE COVERED IN SECTIONS 5.3 THROUGH 5.8. REQUIREMENTS FOR PROCEDURES AND PRACTICES FOR FIRE PREVENTION, FIRE PROTECTION, ENVIRONMENTAL PROTECTION MEASURES, AND FIRE CONTROL IN THESE OPERATIONS SHALL BE COVERED IN SECTIONS 5.9 THROUGH 5.12 AND SHALL BE APPLIED AS APPROPRIATE.

R 29.5249 FACILITY DESIGN.

RULE 249. SECTION 5.3.3.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.3.3.2 LOAD-BEARING BUILDING SUPPORTS AND LOAD-BEARING SUPPORTS OF VESSELS AND EQUIPMENT CAPABLE OF RELEASING APPRECIABLE QUANTITIES OF LIQUIDS SO AS TO RESULT IN A FIRE OF SUFFICIENT INTENSITY AND DURATION TO CAUSE SUBSTANTIAL PROPERTY DAMAGE SHALL BE PROTECTED BY DRAINAGE TO A SAFE LOCATION TO PREVENT LIQUIDS FROM ACCUMULATING UNDER VESSELS OR EQUIPMENT AND BY ANY OF THE FOLLOWING:
(A) 2 HOUR FIRE-RESISTIVE CONSTRUCTION.
(B) 2 HOUR FIRE RESISTANT PROTECTIVE COATINGS OR SYSTEMS.
(C) WATER SPRAY SYSTEMS DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 15, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION.
(D) OTHER ALTERNATE MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5250 DRAINAGE.
RULE 250. SECTION 5.3.5.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
5.3.5.2 EMERGENCY DRAINAGE SYSTEMS SHALL NOT BE CONNECTED TO PUBLIC SEWERS OR PUBLIC WATERWAYS UNLESS THEY ARE EQUIPPED WITH SEPARATORS THAT ARE PROVIDED WITH AN INSPECTION, CLEANING AND MAINTENANCE SCHEDULE, AND PROPER DOCUMENTATION. IF CONNECTED TO PUBLIC SEWERS OR DISCHARGED INTO PUBLIC WATERWAYS, EMERGENCY DRAINAGE SYSTEMS SHALL BE EQUIPPED WITH TRAPS OR SEPARATORS. THE TRAPS, SEPARATORS, HOLDING TANKS, OR OTHER APPROVED MEANS SHALL BE PROPERLY DESIGNED AND MAINTAINED ACCORDING TO THE MANUFACTURER'S OPERATING INSTRUCTIONS BY THE OWNER OR OPERATOR AND SHALL BE EMPTIED OF ACCUMULATED PRODUCT, FOR WHICH IT IS INTENDED, BEFORE REACHING SAFE STORAGE CAPACITY.

R 29.5251 LOADING AND UNLOADING OPERATIONS AND FACILITIES.
RULE 251. SECTIONS 5.6.3, 5.6.4, AND 5.6.5 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
5.6.3 TANK VEHICLE AND TANK CAR LOADING AND UNLOADING FACILITIES SHALL BE SEPARATE FROM ABOVEGROUND TANKS, WAREHOUSES, OTHER PLANT BUILDINGS, OR THE NEAREST LINE OF ADJOINING PROPERTY THAT CAN BE BUILT UPON BY A DISTANCE NOT LESS THAN 25 FEET (7.6 METERS) FOR CLASS I LIQUIDS AND NOT LESS THAN 15 FEET (4.6 METERS) FOR CLASS II AND CLASS III LIQUIDS, MEASURED FROM THE NEAREST FILL SPOUT OR TRANSFER CONNECTION. THESE DISTANCES SHALL BE ACHIEVED BY THE USE OF FIXED PIPING BETWEEN THE TANK AND THE TRANSFER CONNECTION. THESE DISTANCES SHALL BE PERMITTED TO BE REDUCED BY UTILIZING AN AUTOMATIC FIXED FIRE PROTECTION SYSTEM OR FIRE-RATED BARRIER RATED FOR 2 OR MORE HOURS. BUILDINGS FOR PUMPS OR SHELTERS FOR PERSONNEL SHALL BE PERMITTED TO BE A PART OF THE FACILITY.
EXCEPTION 1: A FIRE-PROTECTED TANK OR A TANK IN A VAULT DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR THE LOADING AND UNLOADING RISERS.

EXCEPTION 2: A TANK WHICH HAS A CAPACITY OF 3000 GALLONS (11,340 LITERS) OR LESS WHICH IS LOCATED 10 FEET (3.1 METER) FROM ANY BUILDING, WHICH IS PROVIDED WITH SPILL AND AUDIBLE OVERFILL PROTECTION OR OTHER MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT, AND WHICH DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR LOADING AND UNLOADING RISERS.

5.6.4 PROVISIONS SHALL BE MADE TO PREVENT LIQUIDS THAT CAN BE SPILLED AT A LOADING OR UNLOADING FACILITY FROM ENTERING A PUBLIC SEWER, GROUNDWATER, SURFACE WATER, SUBSURFACE SOILS, OR THE IMPOUNDMENT AREA FOR THE TANKS, OTHER THAN REMOTE IMPOUNDING. IF ADEQUATE SPILL PROTECTION IS NOT PROVIDED AT THE LOADING AND UNLOADING AREAS, A SPILL PAD SHALL BE PROVIDED WITH A FIXED SOURCE OF SPILL CONTAINMENT AT THE STATIONARY DRY-BREAK CONNECTION. A CONNECTION TO A PUBLIC SEWER, DRAIN, OR SURFACE WATER SHALL BE PROVIDED WITH A TRAP OR SEPARATOR. THE TRAPS, SEPARATORS, HOLDING TANKS, OR OTHER APPROVED MEANS SHALL BE PROPERLY DESIGNED AND MAINTAINED ACCORDING TO THE MANUFACTURERS OPERATING INSTRUCTIONS BY THE OWNER OR OPERATOR AND SHALL BE EMPTIED OF ACCUMULATED PRODUCT, FOR WHICH IT IS INTENDED, BEFORE REACHING SAFE STORAGE CAPACITY. EXISTING LOCATIONS SHALL BE EQUIPPED WITH SUCH PROVISIONS WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES.

5.6.5 A LOADING OR UNLOADING FACILITY THAT HAS A CANOPY, ROOF, OR OTHERWISE SHELTERED FROM THE WEATHER SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND HAVE PRIOR APPROVAL BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE CANOPY OR ROOF SHALL NOT LIMIT THE DISSIPATION OF HEAT OR DISPERSION OF FLAMMABLE VAPORS AND CANNOT RESTRICT FIREFIGHTING ACCESS AND CONTROL.

R 29.5252 WHARVES.

RULE 252. SECTION 5.7.2(3) OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.7.2 (3) WHARVES THAT HANDLE LIQUEFIED PETROLEUM GASES, AS COVERED IN NFPA 59A, STANDARD FOR THE PRODUCTION, STORAGE, AND HANDLING OF LIQUEFIED NATURAL GAS (LNG) R 29.4001 ET SEQ.

R 29.5253 CONTROL OF IGNITION SOURCES.

RULE 253. SECTION 5.9.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.9.2 SMOKING. SMOKING IS PERMITTED ONLY IN DESIGNATED AND PROPERLY IDENTIFIED AREAS. “NO SMOKING” SIGNS SHALL BE CONSPICUOUSLY POSTED WHERE HAZARD FROM FLAMMABLE VAPORS MAY BE PRESENT.

R 29.5254 VAPOR RECOVERY AND VAPOR PROCESSING SYSTEMS.

RULE 254. SECTION 5.10.1.2(2) OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.10.1.2(2) MARINE AND AUTOMOTIVE SERVICE STATION SYSTEMS THAT COMPLY WITH PART 3 OF THESE RULES.

R 29.5255 REFERENCED PUBLICATIONS.

RULE 255. SECTIONS 7.1.2.1, 7.1.2.5, 7.1.2.7, 7.1.2.8, AND 7.1.2.12 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

7.1.2.1 API PUBLICATIONS.

API PUBLICATION 334, GUIDE TO LEAK DETECTION FOR ABOVEGROUND STORAGE TANKS, 1ST EDITION, MARCH 1996. ADDED.

API SPECIFICATION 651, CATHODIC PROTECTION OF ABOVEGROUND STORAGE TANKS, 1ST EDITION, 1997. ADDED.

API SPECIFICATION 653, TANK INSPECTION, REPAIR, ALTERATION, AND RECONSTRUCTION, 2ND EDITION, ADDENDUM 4, 1999. ADDED.

7.1.2.5 NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE) INTERNATIONAL, PUBLICATIONS.

NACE STANDARD RP-0193, EXTERNAL CATHODIC PROTECTION OF ON-GRADE METALLIC STORAGE TANK BOTTOMS. ADDED.

7.1.2.7 STI PUBLICATIONS.

STI ACT-100, SPECIFICATION FOR FABRICATION OF FRP CLAD/COMPOSITE UNDERGROUND STORAGE TANKS, INSTALLATION CHECK LIST, AND RECORD OF INSTALLATION. ADDED.

STI SP001-00, STANDARD FOR INSPECTION OF IN-SERVICE SHOP FABRICATED ABOVEGROUND TANKS FOR STORAGE OF COMBUSTIBLE AND FLAMMABLE LIQUIDS, 1ST EDITION, 2000. ADDED.

7.1.2.8 UL PUBLICATIONS.

UL 2080, STANDARD FOR FIRE RESISTANT TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, 2000. DELETED.

UL 2245, STANDARD FOR BELOW-GRADE VAULTS FOR FLAMMABLE LIQUID STORAGE TANKS, 1999. DELETED.

7.1.2.12 AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING (ASNT) PUBLICATIONS.

ASNT SNT-TC-1A, PERSONNEL QUALIFICATION AND CERTIFICATION IN NONDESTRUCTIVE TESTING. ADDED.

PART 3. AMENDMENTS TO THE CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES

R 29.5301 SCOPE.

RULE 301. SECTION 1.1.3 OF THE FLAMMABLE AND COMBUSTIBLE LIQUIDS (FL/CL) CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 1.1.4 AND 1.1.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1.1.3 THIS PART DOES NOT APPLY TO CLASS IIIB LIQUIDS.

1.1.4 ALL OF THE PROVISIONS OF PART 2 OF THESE RULES APPLY TO THIS PART.

1.1.5 UNDERGROUND STORAGE TANK SYSTEMS SHALL ALSO BE IN COMPLIANCE WITH THE PROVISIONS OF PART 2 OF THE RULES, AND PART 211 1994 PA 451, MCL 324.21101 ET SEQ.

R 29.5302 EQUIVALENCY.

RULE 302. SECTION 1.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
1.5. NOTHING IN THIS FL/CL CODE IS INTENDED TO PREVENT THE USE OF SYSTEMS, METHODS, OR DEVICES OF EQUIVALENT OR SUPERIOR QUALITY, STRENGTH, FIRE RESISTANCE, EFFECTIVENESS, DURABILITY, ENVIRONMENTAL PROTECTION CAPABILITY, AND SAFETY OVER THOSE PRESCRIBED BY THIS FL/CL CODE. TECHNICAL DOCUMENTATION SHALL BE SUBMITTED TO THE DEPARTMENT TO DEMONSTRATE EQUIVALENCY. THE SYSTEM, METHOD, OR DEVICE SHALL BE APPROVED FOR THE INTENDED PURPOSE BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5303 REFERENCED PUBLICATIONS.

RULE 303. SECTION 2.1.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, 1998 EDITION. ADDED.
NFPA 31, STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT, 1997 EDITION. DELETED.
NFPA 51, STANDARD FOR THE DESIGN AND INSTALLATION OF OXYGEN-FUEL GAS SYSTEMS FOR WELDING, CUTTING, AND ALLIED PROCESSES, 1997 EDITION. DELETED.
NFPA 51B, STANDARD FOR THE FIRE PREVENTION DURING WELDING, CUTTING, AND OTHER HOT WORK, 1999 EDITION. DELETED.
NFPA 52, COMPRESSED NATURAL GAS (CNG) VEHICULAR FUEL SYSTEMS CODE, 1998 EDITION. DELETED.
NFPA 58, LIQUEFIED PETROLEUM GAS CODE, 1998 EDITION. DELETED.
NFPA 82, STANDARD ON INCINERATORS AND WASTE AND LINEN HANDLING SYSTEMS AND EQUIPMENT, 1999 EDITION. DELETED.
NFPA 86, STANDARD FOR OVENS AND FURNACES, 1999 EDITION. DELETED.
NFPA 90A, STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS, 1999 EDITION. DELETED.
NFPA 211, STANDARD FOR CHIMNEYS, FIREPLACES, VENTS, AND SOLID FUEL-BURNING APPLIANCES, 2000 EDITION. DELETED.
NFPA 253, STANDARD METHOD OF TEST FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A RADIANT HEAT ENERGY SOURCE, 2000 EDITION. DELETED.

R 29.5304 UL PUBLICATIONS.

RULE 304. SECTION 2.1.2.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
UL 142 STANDARD FOR STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, 1993 EDITION. ADOPTED.
UL 2080 DELETED.
UL 2245 DELETED.

R 29.5305 DEFINITIONS.

RULE 305. SECTIONS 3.1.1, 3.1.2, AND 3.1.19.4 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES, SECTIONS 3.1.1(A), 3.1.3(A), 3.1.4(A), 3.1.7(A), 3.1.7(B), 3.1.15.4, 3.1.16(A) ,3.1.19.5, 3.1.19.6, AND 3.1.19.7 ARE ADDED TO THE FL/CL CODE, AND SECTION 3.1.19.2 IS DELETED FROM THE FL/CL CODE AS FOLLOWS:

3.1.1 APPROVED. ACCEPTABLE TO THE DEPARTMENT.

3.1.1(A) AST SYSTEM. A TANK OR COMBINATION OF TANKS, INCLUDING THE PIPES THAT ARE CONNECTED TO THE TANK, TANKS, OR ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS LESS THAN 10% OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK, OR TANKS, BENEATH THE SURFACE OF THE GROUND.

3.1.2 AUTHORITY HAVING JURISDICTION. THE DEPARTMENT.

3.1.3(A) BUILDING. A STRUCTURE THAT HAS WALLS OR A ROOF.

3.1.4(A) FL/CL CODE. THE STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS RULES AS PROMULGATED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

3.1.7(A) DEPARTMENT. DEPARTMENT OF ENVIRONMENTAL QUALITY.

3.1.7(B) DIRECTOR. THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

3.1.15.4 PUBLIC MOTOR FUEL DISPENSING FACILITY. A MOTOR FUEL DISPENSING FACILITY THAT IS AVAILABLE FOR USE BY THE PUBLIC.

3.1.16(A) RELEASE. AS DEFINED IN SECTION 20101(BB) OF 1994 PA 451, MCL 324.20101(BB), INCLUDES, BUT IS NOT LIMITED TO, ANY SPILLING, LEAKING, PUMPING, POURING, EMITTING, EMPTYING, DISCHARGING, INJECTING, ESCAPING, LEACHING, DUMPING, OR DISPOSING OF A HAZARDOUS SUBSTANCE INTO THE ENVIRONMENT OR THE ABANDONMENT OR DISCARDING OF BARRELS, CONTAINERS, AND OTHER CLOSED RECEPTACLES CONTAINING A HAZARDOUS SUBSTANCE. RELEASE DOES NOT INCLUDE ANY OF THE FOLLOWING:

(A) A RELEASE THAT RESULTS IN EXPOSURE TO PERSONS SOLELY WITHIN A WORKPLACE, WITH RESPECT TO A CLAIM THAT THE PERSONS MAY ASSERT AGAINST THEIR EMPLOYERS.

(B) EMISSIONS FROM THE ENGINE EXHAUST OF A MOTOR VEHICLE, ROLLING STOCK, AIRCRAFT, OR VESSEL.

(C) A RELEASE OF SOURCE, BY-PRODUCT, OR SPECIAL NUCLEAR MATERIAL FROM A NUCLEAR INCIDENT, AS THOSE TERMS ARE DEFINED IN THE ATOMIC ENERGY ACT OF 1954, CHAPTER 1073, 68 STAT. 919, IF THE RELEASE IS SUBJECT TO REQUIREMENTS WITH RESPECT TO FINANCIAL PROTECTION ESTABLISHED BY THE NUCLEAR REGULATORY COMMISSION UNDER SECTION 170 OF CHAPTER 14 OF TITLE I OF THE ATOMIC ENERGY ACT OF 1954, CHAPTER 1073, 71 STAT. 576, 42 U.S.C. 2210, OR ANY RELEASE OF SOURCE BY-PRODUCT OR SPECIAL NUCLEAR MATERIAL FROM ANY PROCESSING SITE DESIGNATED UNDER SECTION 102(A)(1) OF TITLE I OR 302(A) OF TITLE III OF THE URANIUM MILL TAILINGS RADIATION CONTROL ACT OF 1978, PUBLIC LAW 95-604 42 U.S.C. 7912 AND 7942.

(D) IF APPLIED ACCORDING TO LABEL DIRECTIONS AND ACCORDING TO GENERALLY ACCEPTED AGRICULTURAL AND MANAGEMENT PRACTICES, THE APPLICATION OF A FERTILIZER, SOIL CONDITIONER, AGRONOMICALLY APPLIED MANURE, OR PESTICIDE, OR

FRUIT, VEGETABLE, OR FIELD CROP RESIDUALS OR PROCESSING BY-PRODUCTS, AQUATIC PLANTS, OR A COMBINATION OF THESE SUBSTANCES. AS USED IN THIS SUBDIVISION, FERTILIZER AND SOIL CONDITIONER HAVE THE MEANING GIVEN TO THESE TERMS PART 85 OF 1994 PA 451, MCL 324.101 ET SEQ. AND PESTICIDE HAS THE MEANING GIVEN TO THAT TERM IN PART 83 OF 1994 PA 451, MCL 324.8301 ET SEQ.

(E) A RELEASE DOES NOT INCLUDE FRUITS, VEGETABLES, FIELD CROP PROCESSING BY-PRODUCTS, OR AQUATIC PLANTS, THAT ARE APPLIED TO THE LAND FOR AN AGRICULTURAL USE OR FOR USE AS AN ANIMAL FEED, IF THE USE IS CONSISTENT WITH GENERALLY ACCEPTED AGRICULTURAL AND MANAGEMENT PRACTICES DEVELOPED PURSUANT TO 1981 PA 93 MCL 286.474 ET SEQ.

3.1.19.2 FIRE RESISTANT TANK. DELETED.

3.1.19.4 PROTECTED ABOVEGROUND TANK. AN ABOVEGROUND STORAGE TANK THAT IS LISTED IN ACCORDANCE WITH UNDERWRITERS LABORATORIES, STANDARD 2085, STANDARD FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.3, OR EQUIVALENT TEST PROCEDURE THAT CONSISTS OF A PRIMARY TANK PROVIDED WITH PROTECTION FROM PHYSICAL DAMAGE AND FIRE-RESISTIVE PROTECTION FROM EXPOSURE TO A HIGH-INTENSITY LIQUID POOL FIRE. DURING THIS EQUIVALENT TEST PROCEDURE, THE TEMPERATURE INSIDE THE TANK SHALL NOT EXCEED AN AVERAGE MAXIMUM TEMPERATURE RISE OF 260 FAHRENHEIT (144 CELSIUS) DURING THE 2 HOUR FIRE EXPOSURE. BOTH THE PRIMARY AND THE SECONDARY CONTAINMENT STRUCTURAL INTEGRITY SHALL STAY INTACT.

3.1.19.5 SECONDARY CONTAINMENT TANK. A TANK THAT IS ENCLOSED COMPLETELY WITHIN A LARGER TANK OF THE SAME OR DIFFERENT MATERIAL. THE PRIMARY TANK SHALL BE CONSTRUCTED AND THE SECONDARY OR OUTER TANK SHALL MEET THE REQUIREMENTS OF SECTION 2.2.3. THE INTERSTITIAL OR ANNULAR SPACE BETWEEN THE WALLS OF THE 2 TANKS SHALL ALLOW FOR LIQUID COMMUNICATION. BOTH THE PRIMARY AND SECONDARY CONTAINMENT SHALL BE PROVIDED WITH ADEQUATE NORMAL AND EMERGENCY VENTING IN COMPLIANCE WITH SECTION 2.2.5 OF THE FL/CL CODE.

3.1.19.6 TANK SYSTEM. AST SYSTEM OR UST SYSTEM.

3.1.19.7 UST SYSTEM. A TANK OR COMBINATION OF TANKS INCLUDING THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS OR UNDERGROUND ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN, USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS 10% OR MORE OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS, BENEATH THE SURFACE OF THE GROUND.

R 29.5306 GENERAL REQUIREMENTS.

RULE 306. SECTION 4.2.4 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.2.4 WHERE TANKS ARE AT AN ELEVATION THAT PRODUCES A GRAVITY HEAD ON THE DISPENSING DEVICE, THE TANK OUTLET SHALL BE EQUIPPED WITH A DEVICE, SUCH AS A NORMALLY CLOSED SOLENOID VALVE, POSITIONED ADJACENT TO AND DOWNSTREAM

FROM THE VALVE SPECIFIED IN SECTION 2.3.2.5.1 OF PART 2 OF THESE RULES, THAT IS INSTALLED AND ADJUSTED SO THAT LIQUID CANNOT FLOW BY GRAVITY FROM THE TANK IF THE PIPING OR HOSE FAILS WHEN THE DISPENSER IS NOT IN USE.

R 29.5307 STORAGE OF LIQUIDS.

RULE 307. SECTIONS 4.3.1, 4.3.2, 4.3.2.1, 4.3.2.2, TABLE 4.3.2.4, 4.3.2.5, 4.3.2.6, AND 4.3.2.8 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES, SECTION 4.3.2.6.1 IS ADDED TO THE FL/CL CODE, AND SECTIONS 4.3.2.7 AND 4.3.2.8 (EXCEPTION) OF THE FL/CL CODE ARE DELETED AS FOLLOWS:

4.3.1 UNDERGROUND STORAGE TANKS. UNDERGROUND STORAGE TANK SYSTEMS SHALL MEET ALL THE APPLICABLE REQUIREMENTS OF PART 2 OF THESE RULES AND SHALL ALSO COMPLY WITH ALL THE REQUIREMENTS OF PART 211 OF 1994 PA 451, MCL 324.21101 ET SEQ.,.

4.3.2 ABOVEGROUND STORAGE TANKS. EXCEPT AS MODIFIED BY PROVISIONS OF THIS SUBSECTION, ABOVEGROUND STORAGE TANKS SHALL MEET ALL APPLICABLE REQUIREMENTS OF PART 2 OF THESE RULES.

4.3.2.1 THE USE OF ABOVEGROUND STORAGE TANKS AT MOTOR FUEL DISPENSING FACILITIES, FLEET VEHICLE MOTOR FUEL DISPENSING FACILITIES, AND MARINE MOTOR FUEL DISPENSING FACILITIES SHALL BE PERMITTED WHEN INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTERS 2 AND 3 OF PART 2 OF THESE RULES, AND WHEN THE SPECIFIC INSTALLATION HAS BEEN APPROVED BY THE DEPARTMENT UNDER SECTION 2.3.2.1 OF PART 2 OF THE RULES.

4.3.2.2 TANKS DESIGNED AND BUILT FOR UNDERGROUND USE SHALL NOT BE INSTALLED FOR ABOVEGROUND USE AND TANKS DESIGNED AND BUILT FOR ABOVEGROUND USE SHALL NOT BE INSTALLED FOR UNDERGROUND USE.

Table 4.3.2.4 Minimum Separation Requirements for Aboveground Tanks. Keep the title and revise the table as follows:

Tank Type	Individual Tank Capacity (gal) (See 4.3.2.3 & 4..3.2.4)	Minimum distance from the nearest important building on the same property (ft)	Minimum distance from nearest fuel dispensing device (ft) (See 4.3.2.6)	Minimum Distance from Lot line that can be built upon including opposite side of a public way (ft)	Distance from the nearest side of any public way (ft)	Minimum distance between tanks (ft)
Tanks in vaults	0-15,000	10	0	15	10	One tank per vault+
Protected aboveground tanks	6,000 or less	5	0	15	5	3
	6,000–16,000	15	0	25	10	3
Other secondary containment tanks	0-12,000	40	50	100*	25	3

+ The separation distances given for a vault are measured from the outer perimeter of the vault, (not the tank). Adjacent vaults may share one wall.
* This distance may be reduced to 50 feet for fleet vehicle motor dispensing.

4.3.2.5 THE MAXIMUM INDIVIDUAL CAPACITY OF 16,000 GALLONS (60,480 LITERS), WHERE INDICATED IN TABLE 4.3.2.4, SHALL BE PERMITTED TO BE INCREASED TO 24,000 GALLONS (90,720 LITERS) FOR CLASS II AND CLASS III LIQUIDS AT A FLEET VEHICLE MOTOR FUEL DISPENSING FACILITY IF LOCATED IN A PROTECTED ABOVEGROUND TANK. THE MAXIMUM AGGREGATE CAPACITY SHALL NOT BE MORE THAN 80,000 GALLONS (302,400 LITERS).

4.3.2.6 AT FLEET VEHICLE MOTOR FUEL DISPENSING FACILITIES, A MINIMUM SEPARATION IS NOT REQUIRED BETWEEN THE DISPENSING DEVICE AND A TANK VAULT OR A PROTECTED TANK. ALSO, A MINIMUM SEPARATION SHALL NOT BE REQUIRED FOR A LISTED SECONDARY CONTAINMENT TANK WHICH IS 4,000 GALLONS (15,120 LITERS) OR LESS AND WHICH HAS A 64 INCH (162.6 CENTIMETERS) NOMINAL DIAMETER OR SMALLER.

4.3.2.6.1 TANK VEHICLE AND TANK CAR LOADING AND UNLOADING FACILITIES SHALL BE SEPARATE FROM ABOVEGROUND TANKS, WAREHOUSES, OTHER PLANT BUILDINGS, OR THE NEAREST LINE OF ADJOINING PROPERTY THAT CAN BE BUILT UPON BY A DISTANCE NOT LESS THAN 25 FEET (7.6 METERS) FOR CLASS I LIQUIDS AND NOT LESS THAN 15 FEET (4.6 METERS) FOR CLASS II AND CLASS III LIQUIDS, MEASURED FROM THE NEAREST FILL SPOUT OR TRANSFER CONNECTION. THESE DISTANCES SHALL BE ACHIEVED BY THE USE OF FIXED PIPING BETWEEN THE TANK AND THE TRANSFER CONNECTION. THESE DISTANCES SHALL BE PERMITTED TO BE REDUCED BY UTILIZING AN AUTOMATIC FIXED FIRE PROTECTION SYSTEM OR FIRE-RATED BARRIER RATED FOR 2 OR MORE HOURS. BUILDINGS FOR PUMPS OR SHELTERS FOR PERSONNEL SHALL BE PERMITTED TO BE A PART OF THE FACILITY.

EXCEPTION 1: A FIRE PROTECTED TANK OR A TANK IN A VAULT DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR THE LOADING AND UNLOADING RISERS.

EXCEPTION 2: A TANK WHICH HAS A CAPACITY OF 3,000 GALLONS (11,340 LITERS) OR LESS WHICH IS LOCATED 10 FEET (3 METERS) FROM ANY BUILDING, AND WHICH IS PROVIDED WITH SPILL AND AUDIBLE OVERFILL PROTECTION OR OTHER MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT, DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR LOADING AND UNLOADING RISERS.

4.3.2.7 DELETED.

4.3.2.8 ABOVEGROUND TANKS SHALL BE PROVIDED WITH SPILL CONTROL THAT MEETS THE REQUIREMENTS OF SECTION 2.3.2.3 OF PART 2 OF THESE RULES. TANK FILL CONNECTIONS SHALL BE PROVIDED WITH A NONCOMBUSTIBLE SPILL CONTAINMENT DEVICE.

EXCEPTION: DELETED.

R 29.5308 VAULTS

RULE 308. SECTIONS 4.3.3.1, 4.3.3.2(B), 4.3.3.2(I), AND 4.3.3.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES, AND SECTIONS 4.3.3.2(K), 4.3.3.2(L), 4.3.3.2(M), AND 4.3.3.2(N) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

4.3.3 VAULTS.

4.3.3.1 GENERAL. ABOVEGROUND TANKS SHALL BE PERMITTED TO BE INSTALLED IN VAULTS THAT MEET THE REQUIREMENTS OF THIS SUBSECTION. EXCEPT AS MODIFIED BY THE PROVISIONS OF THIS SUBSECTION, ABOVEGROUND STORAGE TANKS IN VAULTS SHALL MEET ALL APPLICABLE REQUIREMENTS OF PART 2 OF THESE RULES. VAULTS SHALL BE PERMITTED TO BE EITHER ABOVE OR BELOW GRADE. PARTIALLY BELOW GRADE VAULTS SHALL BE NOT LESS THAN 4 FEET ABOVE ADJACENT GROUND LEVEL.

4.3.3.2 VAULT DESIGN AND CONSTRUCTION. VAULTS SHALL BE DESIGNED AND CONSTRUCTED TO MEET THE FOLLOWING REQUIREMENTS:

(B) THE TOP OF AN ABOVEGROUND VAULT SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL AND SHALL BE DESIGNED TO BE WEAKER THAN THE WALLS OF THE VAULT TO ENSURE THAT THE THRUST OF ANY EXPLOSION OCCURRING INSIDE THE VAULT IS DIRECTED UPWARD BEFORE DESTRUCTIVE INTERNAL PRESSURE DEVELOPS WITHIN THE VAULT. THE TOP OF AN AT GRADE OR BELOW GRADE VAULT SHALL BE DESIGNED TO RELIEVE OR CONTAIN THE FORCE OF ANY EXPLOSION OCCURRING INSIDE THE VAULT. THE WALLS OF A VAULT WHICH ARE PARTIALLY BELOW GRADE SHALL EXTEND NOT LESS THAN 4 FEET (1.2 METERS) ABOVE THE GRADE.

(I) EACH VAULT SHALL BE PROVIDED WITH A MEANS FOR PERSONAL ENTRY, IS ONLY BE AT THE TOP OF THE VAULT TO ALLOW FOR THE VISUAL INSPECTION OF THE TANK AND PIPING SURFACES. AT EACH ENTRY POINT, A WARNING SIGN THAT INDICATES THE NEED FOR PROCEDURES FOR SAFE ENTRY INTO CONFINED SPACES SHALL BE POSTED. EACH ENTRY POINT SHALL BE SECURED AGAINST UNAUTHORIZED ENTRY AND VANDALISM.

(K) THE VAULT SHALL BE PROVIDED WITH SPILL CONTAINMENT AROUND THE FILL PIPE OR TRANSFER CONNECTION. UNDER TOP FILL APPLICATIONS, SPILL-CONTAINMENT SHALL EMPTY BY GRAVITY ONLY INTO THE PRIMARY TANK.

(L) THE LOADING AND UNLOADING TRANSFER CONNECTION FOR ABOVE GRADE VAULTS SHALL TERMINATE OUTSIDE THE VAULT.

(M) PROVISIONS SHALL BE MADE FOR THE NORMAL OPERATION OF VALVES WITHOUT ENTERING THE VAULT.

(N) A VAULT SHALL BE LOCATED NOT LESS THAN 15 FEET (4.6 METERS) FROM BUILDINGS AND THE PROPERTY LINES.

4.3.3.3 TANK SELECTION AND ARRANGEMENT. TANKS SHALL BE LISTED FOR ABOVEGROUND USE. EACH TANK SHALL BE IN ITS OWN VAULT AND SHALL BE COMPLETELY ENCLOSED BY THE VAULT. SUFFICIENT CLEARANCE BETWEEN THE TANK AND THE VAULT SHALL BE PROVIDED TO ALLOW FOR VISUAL INSPECTION AND MAINTENANCE OF ALL THE VAULT SURFACES AS WELL AS THE TANK AND ITS APPURTENANCES.

R 29.5309 FIRE RESISTANT TANKS

RULE 309. SECTIONS 4.3.4, 4.3.4.1 AND 4.3.4.2 OF THE FL/CL CODE ARE DELETED:

4.3.4 FIRE RESISTANT TANK. DELETED.

4.3.4.1 DELETED.
4.3.4.2 DELETED.

R 29.5310 ADDITIONAL REQUIREMENTS

RULE 310. SECTION 4.3.6.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.3.6.5 WHERE A TANK IS AT AN ELEVATION THAT PRODUCES A GRAVITY HEAD ON THE DISPENSING DEVICE, THE TANK OUTLET SHALL BE EQUIPPED WITH A DEVICE, SUCH AS A NORMALLY CLOSED SOLENOID VALVE, THAT WILL PREVENT GRAVITY FLOW FROM THE TANK TO THE DISPENSER. THIS DEVICE SHALL BE LOCATED ADJACENT TO AND DOWNSTREAM OF THE OUTLET VALVE SPECIFIED BY SECTION 2.3.2.5.1. THE DEVICE SHALL BE INSTALLED AND ADJUSTED SO THAT LIQUID CANNOT FLOW BY GRAVITY FROM THE TANK TO THE DISPENSER IN THE EVENT OF FAILURE OF THE PIPING OR HOSE WHEN THE DISPENSER IS NOT IN USE.

R 29.5311 PHYSICAL PROTECTION FOR ALL OUTSIDE ABOVEGROUND TANKS.

RULE 311. SECTIONS 4.3.7.1 AND 4.3.7.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

4.3.7.1 TANKS SHALL BE ENCLOSED WITH A CHAIN LINK FENCE WHICH IS NOT LESS THAN 6 FEET (1.8 METERS) HIGH AND WHICH HAS A MEANS OF INGRESS AND EGRESS. THE FENCE SHALL BE SEPARATED FROM THE TANKS BY NOT LESS THAN 10 FEET (3 METERS) AND SHALL HAVE A GATE THAT IS PROPERLY SECURED AGAINST UNAUTHORIZED ENTRY. ABOVEGROUND TANKS, OTHER THAN TANKS IN VAULTS, SHALL BE PROTECTED AGAINST VEHICULAR COLLISION BY SUITABLE BARRIERS.

EXCEPTION: A TANK IS NOT REQUIRED TO BE ENCLOSED WITHIN A FENCE IF THE PROPERTY ON WHICH THE TANK IS LOCATED ALREADY HAS A PERIMETER SECURITY FENCE OR IF THE TANK IS LOCATED WITHIN A VAULT THAT IS IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 4.3.3 OF THIS PART.

4.3.7.2 GUARD POSTS OR OTHER APPROVED MEANS SHALL BE PROVIDED TO PROTECT TANKS THAT ARE SUBJECT TO VEHICULAR DAMAGE. WHEN GUARD POSTS ARE INSTALLED, THE FOLLOWING DESIGN IS ACCEPTABLE:

(A) GUARD POSTS SHALL BE CONSTRUCTED OF STEEL NOT LESS THAN 4 INCHES (100 MM) IN DIAMETER AND SHALL BE FILLED WITH CONCRETE.

(B) GUARD POSTS SHALL BE SPACED NOT MORE THAN 4 FEET (1.2 METERS) ON CENTER.

(C) GUARD POSTS SHALL BE SET NOT LESS THAN 4 FEET (1.2 METERS) DEEP IN A CONCRETE FOOTING THAT IS NOT LESS THAN 15 INCHES (375 MILLIMETERS) IN DIAMETER.

R 29.5312 CORROSION CONTROL.

RULE 312. SECTION 4.3.8 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.3.8 ANY PORTION OF A TANK OR ITS PIPING THAT IS IN CONTACT WITH THE SOIL SHALL HAVE PROPERLY ENGINEERED, INSTALLED, AND MAINTAINED CORROSION PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.2.6.1 OF PART 2 OF THESE RULES.

R 29.5313 TEMPORARY STORAGE OF LIQUID FUELS.

RULE 313. SECTION 4.3.10 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

4.3.10 TEMPORARY STORAGE OF LIQUID FUELS. ABOVEGROUND TANKS USED FOR DISPENSING MOTOR FUELS SHALL NOT BE REQUIRED TO BE PERMANENTLY INSTALLED WHEN LOCATED ON PREMISES NOT NORMALLY ACCESSIBLE TO THE PUBLIC IF ALL OF THE FOLLOWING REQUIREMENTS ARE MET:

(A) APPROVAL OF THE DEPARTMENT SHALL BE REQUIRED BEFORE BRINGING THE TANK TO THE SITE. IN REVIEWING A PROPOSED INSTALLATION, THE CONDITION OF THE TANK, THE SITE WHERE THE TANK WILL BE LOCATED, INSTALLATION AND TESTING PROCEDURES, AND OPERATIONAL PROCEDURES SHALL BE EVALUATED BEFORE APPROVAL.

(B) THE APPROVAL SHALL INCLUDE A DEFINITE TIME LIMIT AFTER WHICH THE TANK SHALL BE REMOVED FROM THE SITE AND RELOCATED TO AN APPROVED LOCATION.

(C) THE TANK SHALL COMPLY WITH SECTION 4.3 AND ALL OTHER APPLICABLE PROVISIONS OF THE FL/CL CODE AND PART 2 OF THESE RULES.

(D) A TANK CONTAINING LIQUID SHALL NOT BE MOVED UNLESS IT HAS BEEN SPECIFICALLY INVESTIGATED AND APPROVED FOR MOVEMENT WHILE FULL OR PARTIALLY FULL.

R 29.5314 GENERAL REQUIREMENTS FOR ALL PIPING SYSTEMS

RULE 314. SECTIONS 5.2.1 AND 5.2.4 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 5.2.6.1 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

5.2.1 THE DESIGN, FABRICATION, ASSEMBLY, TEST, AND INSPECTION OF THE PIPING SYSTEM SHALL MEET THE REQUIREMENTS OF PART 2 OF THE RULES, AND 1994 PA 451, MCL 61501.

EXCEPTION 1: WHERE DISPENSING IS FROM A FLOATING STRUCTURE OR PIER, OIL-RESISTANT FLEXIBLE HOSE SHALL BE PERMITTED TO BE USED BETWEEN SHORE PIPING AND THE PIPING ON THE FLOATING STRUCTURE OR PIER AND BETWEEN SEPARATE SECTIONS OF THE FLOATING STRUCTURE OR PIER AND BETWEEN SEPARATE SECTIONS OF THE FLOATING STRUCTURE TO ACCOMMODATE CHANGES IN WATER LEVEL OR SHORELINE, IF THE HOSE IS EITHER RESISTANT TO OR SHIELDED FROM DAMAGE BY FIRE.

EXCEPTION 2: LOW MELTING POINT RIGID OR FLEXIBLE PIPING SHALL BE PERMITTED TO BE USED UNDER A FLOATING STRUCTURE OR PIER IF THE PIPING IS PROTECTED FROM PHYSICAL DAMAGE AND SHIELDED FROM DAMAGE BY FIRE EXPOSURE.

5.2.4 ALL PIPING INSIDE BUILDINGS BUT OUTSIDE THE MOTOR FUEL DISPENSING AREA SHALL BE ENCLOSED WITHIN A HORIZONTAL CHASE OR A VERTICAL SHAFT USED ONLY FOR THE PIPING. VERTICAL SHAFTS AND HORIZONTAL CHASES SHALL BE CONSTRUCTED OF MATERIALS THAT HAVE A RAPID TEMPERATURE-RISE HYDROCARBON TYPE FIRE RESISTANCE RATING OF NOT LESS THAN 2 HOURS.

5.2.6.1 TANKS THAT ARE MANIFOLDED TOGETHER BY PIPING OR BY A SIPHON BAR SHALL HAVE A POSITIVE SHUTOFF VALVE THAT IS LOCATED SO THAT IT IS READILY ACCESSIBLE AND IS REMOTELY OPERABLE.

R 29.5315 INSTALLATION OF PIPING SYSTEMS.

RULE 315. SECTIONS 5.3, 5.3.2.2, AND 5.3.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:

5.3 INSTALLATION OF PIPING SYSTEMS. PIPING SHALL BE INSTALLED IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AND IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS.

5.3.2 FLEXIBLE CONNECTIONS.

5.3.2.2 ACCEPTABLE MEANS FOR PROVIDING FLEXIBILITY IN PIPING SYSTEMS SHALL INCLUDE ALL OF THE FOLLOWING:

(A) LISTED FLEXIBLE CONNECTORS THAT ARE APPROVED FOR THE PURPOSE.

(B) PIPING THAT IS INHERENTLY FLEXIBLE AND IS APPROVED FOR THE PURPOSE.

(C) ANY FLEXIBLE CONNECTORS IF IN CONTACT WITH GROUND OR SOIL SHALL BE CATHODICALLY PROTECTED.

(D) OTHER MEANS APPROVED BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

5.3.3 FIBERGLASS REINFORCED PLASTIC PIPING. FIBERGLASS REINFORCED PLASTIC (FRP) PIPING SHALL NOT BE REQUIRED TO HAVE FLEXIBLE JOINTS WHERE OTHERWISE WOULD BE REQUIRED BY SECTION 5.3.2 IF BOTH OF THE FOLLOWING CONDITIONS EXIST:

(A) THE PIPING DOES NOT EXCEED 4 INCHES (100 MILLIMETERS) IN DIAMETER.

(B) THE PIPING HAS A STRAIGHT RUN OF NOT LESS THAN 4 FEET (1.2 METERS) ON EITHER SIDE OF THE CONNECTION WHEN THE CONNECTION RESULTS IN A CHANGE OF DIRECTION.

R 29.5316 TESTING.

RULE 316. SECTION 5.4.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5.4.1 GENERAL. ALL PIPING AND SECONDARY CONTAINMENT PIPING SHALL BE TESTED BEFORE BEING COVERED, ENCLOSED, OR PLACED IN SERVICE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 3.6 OF PART 2 OF THESE RULES.

R 29.5317 GENERAL REQUIREMENTS.

RULE 317. SECTION 6.2.3 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

6.2.3 EACH DISPENSING DEVICE SHALL BE LOCATED NOT LESS THAN 10 FEET (3.1 METERS) FROM PROPERTY LINES, OPENINGS TO BUILDINGS, AND BUILDINGS OF COMBUSTIBLE WALL CONSTRUCTION. A DISPENSING DEVICE SHALL NOT BE LESS THAN 20 FEET (6.1 METERS) FROM ANY ACTIVITY THAT INVOLVES A FIXED SOURCE OF IGNITION.

R 29.5318 REQUIREMENTS FOR DISPENSING DEVICES.

RULE 318. SECTION 6.3.4.1 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

6.3.4.1 THE AREA BENEATH EACH DISPENSING DEVICE SHALL BE PROVIDED WITH A LIQUIDTIGHT SUMP THAT WILL PREVENT ANY LEAKS IN THE DISPENSING DEVICE FROM REACHING GROUNDWATER, SURFACE WATER, OR SUBSURFACE SOILS.

R 29.5319 REQUIREMENTS FOR DISPENSING HOSES.

RULE 319. SECTION 6.5.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
6.5.3 WHERE HOSES ARE ATTACHED TO A HOSE-RETRIEVING MECHANISM, THE LISTED EMERGENCY BREAKAWAY DEVICE SHALL BE INSTALLED BETWEEN THE POINT OF ATTACHMENT OF THE HOSE RETRIEVING MECHANISM TO THE HOSE AND THE HOSE NOZZLE VALVE.
EXCEPTION: THE DEVICES SHALL NOT BE REQUIRED AT ATTENDED MARINE MOTOR FUEL DISPENSING FACILITIES.

R 29.5320 REQUIREMENTS FOR FUEL DELIVERY NOZZLES.
RULE 320. SECTION 6.6.6 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
6.6.6 EACH DISPENSING HOSE NOZZLE VALVE SHALL BE EQUIPPED WITH A DEVICE TO PREVENT THE SPLASHING OF LIQUID DURING THE DISPENSING OPERATION.
EXCEPTION: SPLASH GUARDS ARE NOT REQUIRED FOR CLASS II NOZZLES THAT ARE 1 INCH (25 MILLIMETERS) OR MORE IN SIZE.

R 29.5321 REPAIR GARAGES.
RULE 321. SECTIONS 7.4.2 AND 7.4.4.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
7.4.2 GENERAL CONSTRUCTION REQUIREMENTS. IN MAJOR REPAIR GARAGES, WHERE CNG FUELED VEHICLES, LNG FUELED VEHICLES, OR LPG FUELED VEHICLES ARE REPAIRED, ALL APPLICABLE REQUIREMENTS OF R 29.4601 ET SEQ., NFPA 57, LIQUEFIED NATURAL GAS (LNG) VEHICULAR FUEL SYSTEMS, ADOPTED BY REFERENCE IN SECTION 2.1.1, OR R 29.4001 ET SEQ., SHALL BE MET.
7.4.4.2 IN AREAS OF REPAIR GARAGES WHERE VEHICLES ARE SERVICED, ANY FLOOR DRAINS SHALL BE PROPERLY TRAPPED AND SHALL DISCHARGE TO A STORAGE TANK OR THROUGH AN OIL/WATER SEPARATOR TO THE SANITARY SEWER.

R 29.5322 HEAT-PRODUCING APPLIANCES.
RULE 322. SECTION 7.6.9 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
7.6.9 HEAT-PRODUCING APPLIANCES SHALL BE INSTALLED TO MEET THE REQUIREMENTS OF PART 4 OF THESE RULES, NFPA 90A, STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS; NFPA 54, NATIONAL FUEL GAS CODE; NFPA 211, STANDARD FOR CHIMNEYS, FIREPLACES, VENTS, AND SOLID FUEL-BURNING APPLIANCES; AND NFPA 82, STANDARDS FOR INCINERATORS AND WASTE AND LINEN HANDLING SYSTEMS AND EQUIPMENT; ADOPTED BY REFERENCE IN SECTION 2.1.1, AS APPLICABLE, EXCEPT AS HEREINAFTER SPECIFICALLY PROVIDED.

R 29.5323 TANK FILLING REQUIREMENTS.
RULE 323. SECTION 9.2.2.2, OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES, AND EXCEPTIONS 1 & 2 OF SECTION 9.2.2.2 OF THE FL/CL CODE ARE DELETED:
9.2.2.2 TANK LOADING AND UNLOADING AREA AND OPERATION SHALL COMPLY WITH SECTIONS 5.6.3 AND 5.6.4 OF PART 2 OF THESE RULES. A SEPARATION DISTANCE IS NOT

REQUIRED FOR THE LOADING AND UNLOADING TRANSFER CONNECTION OF UNDERGROUND STORAGE TANKS, VAULTS, AND FIRE PROTECTED TANKS.
EXCEPTION NO.1 DELETED.
EXCEPTION NO. 2 DELETED.

R 29.5324 DISPENSING INTO CONTAINERS.
RULE 324. SECTION 9.2.3.4 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
9.2.3 DISPENSING INTO CONTAINERS.
9.2.3.4 A CONTAINER SHALL NOT BE FILLED WITH LIQUID WHILE IT IS INSIDE A PASSENGER-CARRYING VEHICLE. A CONTAINER SHALL BE REMOVED FROM THE INTERIOR OF A PASSENGER VEHICLE, FROM THE BACK OR ENCLOSED PORTION OF ANY OTHER VEHICLE, OR FROM THE BED OF A PICKUP TRUCK WHICH HAS A BED LINER DURING FUELING. A PERSON SHALL NOT FILL OR TRANSPORT A PORTABLE CONTAINER THAT HOLDS MORE THAN 6 GALLONS (23 LITERS) OF CLASS I OR CLASS II LIQUID INSIDE THE PASSENGER COMPARTMENT OF A MOTOR VEHICLE. A CONTAINER THAT IS FILLED WITH, OR SOLD CONTAINING, GASOLINE, BENZENE, OR NAPHTHA SHALL BE PAINTED VERMILLION (BRIGHT RED) AND SHALL BE LETTERED OR LABELED WITH THE NAME OF THE PRODUCT. KEROSENE, FUEL OIL, OR OTHER COMBUSTIBLE LIQUID SHALL NOT BE PUT INTO, OR SOLD IN, A CONTAINER THAT IS PAINTED VERMILLION OR BRIGHT RED.

R 29.5325 BASIC FIRE CONTROL
RULE 325. SECTIONS 9.2.5.1, 9.2.5.2, AND 9.2.5.4 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
9.2.5 BASIC FIRE CONTROL.
9.2.5.1 SOURCES OF IGNITION. SMOKING MATERIALS, INCLUDING MATCHES, LIGHTERS, AND OTHER SOURCES OF IGNITION INCLUDING TORCHES, SHALL NOT BE USED WITHIN 20 FEET (6 METERS) OF AREAS USED FOR FUELING, SERVICING FUEL SYSTEMS OF INTERNAL COMBUSTION ENGINES, OR RECEIVING OR DISPENSING OF CLASS I LIQUIDS. THE MOTORS OF ALL EQUIPMENT BEING FUELED SHALL BE SHUT OFF DURING THE FUELING OPERATION, EXCEPT FOR EMERGENCY GENERATORS, PUMPS, AND THE LIKE, WHERE CONTINUING OPERATION IS ESSENTIAL.
9.2.5.2 FIRE EXTINGUISHERS. EACH MOTOR FUEL DISPENSING FACILITY SHALL BE PROVIDED WITH 1 OR MORE LISTED FIRE EXTINGUISHERS THAT HAVE A MINIMUM CAPABILITY OF 40-B:C. THEY SHALL BE LOCATED SO THAT AN EXTINGUISHER WILL BE WITHIN 100 FEET (30 METERS) OF EACH PUMP, STORAGE TANK FILL PIPE OPENING, AND LUBRICATION OR SERVICE ROOM. FIRE EXTINGUISHERS SHALL BE INSPECTED AND MAINTAINED ACCORDING TO NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, ADOPTED BY REFERENCE IN SECTION 2.1.1.
9.2.5.4 SIGNS. WARNING SIGNS SHALL BE CONSPICUOUSLY POSTED IN THE DISPENSING AREA AND SHALL INCORPORATE THE FOLLOWING OR EQUIVALENT WORDING: “WARNING. IT IS UNLAWFUL AND DANGEROUS TO DISPENSE GASOLINE INTO UNAPPROVED CONTAINERS. NO SMOKING. STOP MOTOR. NO FILLING OR PORTABLE CONTAINERS IN OR ON A MOTOR VEHICLE. THE PERSON SHALL REMAIN IN ATTENDANCE OUTSIDE OF THE VEHICLE AND IN VIEW OF THE NOZZLE.”

R 29.5326 WASTE HANDLING

RULE 326. SECTIONS 9.2.6.3 AND 9.2.6.4 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

9.2.6 WASTE HANDLING.

9.2.6.3 PROVISION SHALL BE MADE IN THE AREA WHERE A LIQUID IS DISPENSED TO PREVENT A SPILLED LIQUID FROM FLOWING INTO THE INTERIOR OF A SERVICE STATION BUILDING. THE PROVISION MAY BE MADE BY GRADING DRIVEWAYS, RAISING DOOR SILLS, OR OTHER EQUALLY EFFECTIVE MEANS.

9.2.6.4 EACH AREA WHERE A LIQUID IS DISPENSED SHALL BE PROTECTED TO MINIMIZE SPILLS FROM ENTERING THE GROUNDWATER, SURFACE WATER, OR SUBSURFACE SOILS. THIS REQUIREMENT MAY BE MET BY PROVIDING A PAVED PAD OF ADEQUATE AREA.

R 29.5327 OPERATIONAL REQUIREMENTS FOR FULL-SERVICE MOTOR FUEL DISPENSING OPERATIONS.

RULE 327. SECTION 9.3.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

9.3.1 THE PROVISIONS OF SECTION 4.2.1 OF THIS PART SHALL NOT PROHIBIT THE TEMPORARY USE OF A MOVEABLE TANK IN CONJUNCTION WITH THE DISPENSING OF A FLAMMABLE OR COMBUSTIBLE LIQUID INTO A FUEL TANK OF A MOTOR VEHICLE OR OTHER MOTORIZED EQUIPMENT WHICH IS ON THE PREMISES AND WHICH IS NOT ACCESSIBLE TO THE PUBLIC. A MOVEABLE TANK INSTALLATION SHALL ONLY BE MADE WITH THE APPROVAL OF THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE APPROVAL SHALL INCLUDE A DEFINITE TIME LIMIT, WHICH SHALL BE FOR THE PERIOD OF TEMPORARY USE.

R 29.5328 OPERATING REQUIREMENTS FOR ATTENDED SELF-SERVICE MOTOR FUEL DISPENSING FACILITIES.

RULE 328. SECTION 9.4.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 9.4.5 AND 9.4.6 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

9.4.2 THERE SHALL BE NOT LESS THAN 1 ATTENDANT ON DUTY WHILE THE SELF-SERVICE FACILITY IS OPEN FOR BUSINESS. THE ATTENDANT'S PRIMARY FUNCTION SHALL BE TO SUPERVISE, OBSERVE, AND CONTROL THE DISPENSING OF LIQUIDS WHILE THE LIQUIDS ARE ACTUALLY BEING DISPENSED.

9.4.5 THE DISPENSING AREA SHALL AT ALL TIMES BE IN CLEAR VIEW OF THE ATTENDANT, AND THE PLACING OR ALLOWING OF ANY OBSTACLE TO COME BETWEEN THE DISPENSING AREA AND THE ATTENDANT CONTROL AREA IS PROHIBITED. THIS MAY BE ACHIEVED BY CAMERAS OR MIRRORS, OR BOTH. THE ATTENDANT SHALL AT ALL TIMES BE ABLE TO COMMUNICATE WITH PERSONS IN THE DISPENSING AREA.

9.4.6 EACH PERSON WHO PERFORMS THE DISPENSING SHALL STAY OUTSIDE OF HIS OR HER VEHICLE IN VIEW OF THE HOSE NOZZLE VALVE DURING THE DISPENSING OPERATION.

R 29.5329 OPERATING REQUIREMENTS FOR UNATTENDED SELF-SERVICE MOTOR FUEL DISPENSING FACILITIES.

RULE 329. SECTIONS 9.5.1 AND 9.5.6 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 9.5.1.1 AND 9.5.7 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

9.5.1 UNATTENDED SELF-SERVICE SHALL BE PERMITTED SUBJECT TO THE APPROVAL OF THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. USERS SHALL BE REQUIRED TO USE A KEY, CARD, OR OTHER METHOD WHICH IS UNIQUE TO EACH USER, AND WHICH IS PROVIDED BY THE FACILITY OPERATOR, AND SHALL BE PROPERLY TRAINED IN DISPENSING OPERATIONS. THE OWNER SHALL VERIFY SUCH TRAINING TO THE DEPARTMENT UPON REQUEST.

9.5.1.1 AT LEAST ONE EMERGENCY CONTROL DISCONNECT SPECIFIED IN SECTION 6.7 SHALL BE PROVIDED, AND SHALL BE RESET ONLY BY THE OWNER OR AN OWNER'S AUTHORIZED AGENT.

9.5.6 ADDITIONAL FIRE PROTECTION SHALL BE PROVIDED WHERE REQUIRED BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. ADDITIONAL FIRE PROTECTION CONSIDERATIONS MAY INCLUDE FIXED FIRE SUPPRESSION SYSTEMS, AUTOMATIC FIRE DETECTION, MANUAL FIRE ALARM STATIONS, AND TRANSMISSION OF AN ALARM TO OFF-SITE LOCATIONS.

9.5.7 EACH PERSON WHO PERFORMS THE DISPENSING SHALL STAY OUTSIDE HIS OR HER VEHICLE AND IN VIEW OF THE HOSE NOZZLE VALVE DURING THE DISPENSING OPERATION.

R 29.5330 REFUELING FROM TANK VEHICLES.

RULE 330. SECTIONS 9.6, 9.6.1, 9.6.3, 9.6.4, 9.6.5, 9.6.6, AND 9.6.7 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES, AND SECTIONS 9.6.8, 9.6.9, 9.6.10, 9.6.11, 9.6.12, 9.6.13, 9.6.14, 9.6.15, AND 9.6.16 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

9.6 REFUELING FROM TANK VEHICLES. THE DISPENSING OF CLASS I AND CLASS II LIQUIDS IN THE OPEN FROM A TANK VEHICLE TO A MOTOR VEHICLE LOCATED AT COMMERCIAL, INDUSTRIAL, GOVERNMENTAL, OR MANUFACTURING ESTABLISHMENTS AND INTENDED FOR FUELING VEHICLES USED IN CONNECTION WITH THEIR BUSINESSES SHALL BE PERMITTED ONLY IF ALL OF THE REQUIREMENTS OF SECTIONS 9.6.1 THROUGH 9.6.16 HAVE BEEN MET.

9.6.1 THE DEPARTMENT SHALL BE NOTIFIED BEFORE COMMENCING OPERATIONS UNDER SECTION 9.6.

9.6.3 THE DISPENSING NOZZLE SHALL BE A LISTED, AUTOMATIC-CLOSING TYPE WITHOUT A LATCH-OPEN DEVICE.

9.6.4 NIGHTTIME DELIVERIES SHALL ONLY BE MADE IN AN AREA DEEMED ADEQUATELY LIGHTED BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

9.6.5 THE TANK VEHICLE FLASHER LIGHTS SHALL BE IN OPERATION WHILE DISPENSING OPERATIONS ARE IN PROGRESS.

9.6.6 EXPANSION SPACE SHALL BE LEFT IN EACH FUEL TANK TO PREVENT OVERFLOW IN THE EVENT OF TEMPERATURE INCREASE.

9.6.7 SMOKING MATERIALS, INCLUDING MATCHES, LIGHTERS, AND OTHER SOURCES OF IGNITION, INCLUDING TORCHES, SHALL NOT BE USED WITHIN 20 FEET (6 METERS) OF THE DISPENSING OF LIQUIDS IN THE OPEN FROM A TANK VEHICLE TO A MOTOR VEHICLE.
9.6.8 EACH AREA WHERE DISPENSING OF LIQUIDS IN THE OPEN FROM A TANK VEHICLE TO A MOTOR VEHICLE SHALL BE PROVIDED WITH 1 OR MORE LISTED FIRE EXTINGUISHERS THAT HAVE A MINIMUM CAPABILITY OF 40-B:C. THE FIRE EXTINGUISHERS SHALL BE READILY ACCESSIBLE TO THE DISPENSING OPERATION. FIRE EXTINGUISHERS SHALL BE INSPECTED AND MAINTAINED UNDER NFPA 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.
9.6.9 PROVISION SHALL BE MADE IN THE AREA WHERE DISPENSING OF LIQUIDS IN THE OPEN FROM A TANK VEHICLE TO PREVENT SPILLED LIQUID FROM FLOWING INTO THE INTERIOR OF A BUILDING. SUCH PROVISION MAY BE MADE BY GRADING DRIVEWAYS, RAISING DOOR SILLS, OR OTHER EQUALLY EFFECTIVE MEANS.
9.6.10 AT A MINIMUM, EACH AREA WHERE LIQUIDS ARE TRANSFERRED IN THE OPEN FROM THE TANK VEHICLE, EQUIPMENT, OR CONTAINER SHALL BE PROTECTED BY AN IMPERVIOUS SURFACE THAT IS COMPATIBLE WITH PRODUCT TRANSFERRED TO PREVENT SPILLS FROM ENTERING THE GROUNDWATER, SURFACE WATER, OR SUBSURFACE SOILS.
9.6.11 MOBILE FUELING SHALL NOT TAKE PLACE WITHIN 15 FEET (4.6 METERS) OF BUILDINGS, PROPERTY LINES, OR COMBUSTIBLE STORAGE.
9.6.12 TANK VEHICLE BRAKES SHALL BE SET AND CHOCK BLOCKS SHALL BE IN PLACE.
9.6.13 ABSORBENT MATERIALS, NONWATER ABSORBENT PADS, OR A CONTAINMENT BOOM AND AN APPROVED CONTAINER WITH LID, AND A NONMETALLIC SHOVEL SHALL BE PROVIDED TO MITIGATE A MINIMUM 5-GALLON (19 LITERS) FUEL SPILL.
9.6.14 TANKER VEHICLES SHALL BE EQUIPPED WITH A PRESET DEVICE TO LIMIT THE AMOUNT OF A SINGLE FUELING OPERATION TO A MAXIMUM OF 500 GALLONS (1893 LITERS).
9.6.15 PERSONS PERFORMING DISPENSING OPERATIONS SHALL BE ABLE TO DELIVER AND DISPENSE MOTOR FUELS. OPERATORS OF TANK VEHICLES USED FOR MOBILE FUELING OPERATIONS SHALL HAVE ACCESS ON-SITE OR BE IN POSSESSION OF AN EMERGENCY COMMUNICATIONS DEVICE TO NOTIFY THE PROPER AUTHORITIES IF THERE IS AN EMERGENCY.
9.6.16 THE TANK VEHICLE SHALL BE POSITIONED WITH RESPECT TO VEHICLES BEING FUELED TO PREVENT TRAFFIC FROM DRIVING OVER THE DELIVERY HOSE AND BETWEEN THE TANK VEHICLE AND MOTOR VEHICLE BEING FUELED. THE DISPENSING HOSE SHALL BE PROPERLY PLACED ON AN APPROVED REEL OR IN AN APPROVED COMPARTMENT BEFORE MOVING THE TANK VEHICLE.

R 29.5331 REPAIR AREAS.
RULE 331. SECTIONS 9.7.6.2, 9.7.7.1, AND 9.7.8 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
9.7.6 PARTS CLEANING.
9.7.6.2 DEVICES USED TO HEAT NONFLAMMABLE SOLVENT SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF 1 OR BOTH OF THE FOLLOWING:
(A) PART 4 OF THESE RULES.
(B) NFPA 54, NATIONAL FUEL GAS CODE, ADOPTED BY REFERENCE IN SECTION 2.1.1.

THESE HEATING DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 7.6.
9.7.7 CHASSIS CLEANING.
9.7.7.1 CHASSIS CLEANING SHALL NOT BE PERFORMED WITH LIQUIDS THAT HAVE FLASH POINTS BELOW 140 FAHRENHEIT (60 CELSIUS) (CLOSED CUP). IF STEAM IS USED, IT SHALL BE SUPPLIED FROM A BOILER LOCATED, INSTALLED, AND SAFEGUARDED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS FOR HEATING EQUIPMENT IN SECTION 7.6 AND IN THE FOLLOWING DOCUMENTS:
(A) PART 4 OF THESE RULES.
(B) NFPA 54, NATIONAL FUEL GAS CODE.
(C) NFPA 8501, STANDARD FOR SINGLE BURNER BOILER OPERATION, ADOPTED BY REFERENCE IN SECTION 2.1.1.
(D) NFPA 8502, STANDARD FOR THE PREVENTION OF FURNACE EXPLOSIONS/IMPLOSIONS IN MULTIPLE BURNER BOILERS, ADOPTED BY REFERENCE IN SECTION 2.1.1.
9.7.8 STORAGE AND HANDLING OF FLAMMABLE LIQUIDS AND GASES. THE STORAGE AND HANDLING OF FLAMMABLE LIQUIDS SHALL BE IN ACCORDANCE WITH PART 2 OF THESE RULES. THE STORAGE AND HANDLING OF LIQUEFIED PETROLEUM GAS SHALL BE IN ACCORDANCE WITH
R 29.4001 ET SEQ. THE STORAGE AND HANDLING OF FLAMMABLE COMPRESSED GAS FUELS SHALL BE IN ACCORDANCE WITH NFPA 55, STANDARD FOR THE STORAGE, USE, AND HANDLING OF COMPRESSED AND LIQUEFIED GASES IN PORTABLE CYLINDERS, ADOPTED BY REFERENCE IN SECTION 2.1.1, AND R 29.4601 ET SEQ.

R 29.5332 SCOPE.
RULE 332. SECTIONS 11.1.1 AND 11.1.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
11.1.1 THIS CHAPTER SHALL APPLY TO THAT PORTION OF A PROPERTY WHERE LIQUIDS USED AS FUELS ARE STORED, HANDLED, AND DISPENSED FROM EQUIPMENT LOCATED ON SHORE OR FROM EQUIPMENT LOCATED ON PIERS, WHARVES, OR FLOATING DOCKS INTO THE FUEL TANKS OF MARINE CRAFT, INCLUDING INCIDENTAL ACTIVITY, EXCEPT AS COVERED ELSEWHERE IN THIS FL/CL CODE.
11.1.2 THIS CHAPTER SHALL NOT APPLY TO ANY OF THE FOLLOWING:
(A) BULK PLANT OR TERMINAL LOADING OR UNLOADING FACILITIES.
(B) TRANSFER OF LIQUIDS UTILIZING A FLANGE-TO-FLANGE CLOSED TRANSFER PIPING SYSTEM.
(C) MARINE MOTOR FUEL DISPENSING FACILITIES WHERE LIQUIDS USED AS FUELS ARE STORED AND DISPENSED INTO THE FUEL TANKS OF MARINE CRAFT OF 300 GROSS TONS (272 METRIC TONS) OR MORE.
MARINE MOTOR FUEL BULK DISPENSING OPERATIONS SHALL ALSO COMPLY WITH THE PROVISIONS OF CHAPTER 5 OF PART 2 OF THE FL/CL CODE.

R 29.5333 STORAGE.
RULE 333. SECTIONS 11.2.2 AND 11.2.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 11.2.4 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

11.2.2 TANKS THAT SUPPLY MARINE MOTOR FUEL DISPENSING FACILITIES SHALL BE LOCATED ON SHORE OR ON A PIER OF THE SOLID-FILL TYPE. PUMPS THAT ARE NOT INTEGRAL WITH THE DISPENSING DEVICE SHALL ALSO BE LOCATED ON SHORE OR ON A PIER OF THE SOLID-FILL TYPE.
EXCEPTION: WHERE SHORE LOCATION WOULD REQUIRE EXCESSIVELY LONG SUPPLY LINES TO DISPENSING DEVICES, TANKS SHALL BE PERMITTED TO BE LOCATED ON A PIER, IF THE INSTALLATION MEETS ALL APPLICABLE REQUIREMENTS OF CHAPTERS 2 AND 3 OF PART 2 OF THE FL/CL CODE, AND THE QUANTITY STORED IS NOT MORE THAN 1,100 GALLONS (4,180 LITERS) AGGREGATE CAPACITY.
11.2.3 WHERE A TANK IS AT AN ELEVATION THAT PRODUCES A GRAVITY HEAD ON THE DISPENSING DEVICE, THE TANK OUTLET SHALL BE EQUIPPED WITH A DEVICE, SUCH AS A NORMALLY CLOSED SOLENOID VALVE, THAT WILL PREVENT GRAVITY FLOW FROM THE TANK TO THE DISPENSER. THE DEVICE SHALL BE LOCATED ADJACENT TO AND DOWNSTREAM OF THE OUTLET VALVE SPECIFIED BY SECTION 2.3.2.5.1 OF PART 2 OF THE FL/CL CODE. THE DEVICE SHALL BE INSTALLED AND ADJUSTED SO THAT LIQUID CANNOT FLOW BY GRAVITY FROM THE TANK TO THE DISPENSER IF THE PIPING OR HOSE FAILS WHEN THE DISPENSER IS NOT IN USE.
11.2.4 IF A SUBMERSIBLE PUMP SYSTEM IS USED, A LISTED EMERGENCY SHUTOFF VALVE SHALL BE INSTALLED AT EACH DISPENSING DEVICE AS REQUIRED BY SECTION 6.3.9 OF THIS PART.

R 29.5334 GENERAL REQUIREMENTS.
RULE 334. SECTION 12.2.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
12.2.1 THE INSTALLATION AND USE OF CNG SYSTEMS SHALL MEET THE REQUIREMENTS OF R 29.4601 ET SEQ., EXCEPT AS MODIFIED BY THIS CHAPTER. THE INSTALLATION AND USE OF LNG SYSTEMS SHALL MEET THE REQUIREMENTS OF NFPA 57, LIQUEFIED NATURAL GAS (LNG) VEHICULAR FUEL SYSTEMS CODE, ADOPTED BY REFERENCE IN SECTION 2.1.1, EXCEPT AS MODIFIED BY THIS CHAPTER. THE INSTALLATION AND USE OF LPG SYSTEMS SHALL MEET THE REQUIREMENTS OF R 29.4001 ET SEQ., EXCEPT AS MODIFIED BY THIS CHAPTER.

R 29.5335 FUEL STORAGE.
RULE 335. SECTIONS 12.3.1, 12.3.2, AND 12.3.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
12.3.1 ABOVEGROUND TANKS STORING CNG OR LNG SHALL BE SEPARATED FROM ANY ADJACENT PROPERTY LINE THAT IS OR CAN BE BUILT UPON, AND PUBLIC WAY, AND THE NEAREST IMPORTANT BUILDING ON THE SAME PROPERTY BY NOT LESS THAN THE DISTANCE GIVEN IN THE
R 29.4601 ET SEQ.
12.3.2 ABOVEGROUND TANKS STORING LPG SHALL BE SEPARATED FROM ANY ADJACENT PROPERTY LINE THAT IS OR CAN BE BUILT UPON, ANY PUBLIC WAY, AND THE NEAREST IMPORTANT BUILDING ON THE SAME PROPERTY BY NOT LESS THAN THE DISTANCE GIVEN IN R 29.4001 ET SEQ.

12.3.3 ABOVEGROUND TANKS STORING CNG, LNG, OR LPG SHALL BE SEPARATED FROM EACH OTHER BY NOT LESS THAN 20 FEET (6 METERS) AND FROM DISPENSING DEVICES THAT DISPENSE LIQUID OR GASEOUS MOTOR VEHICLE FUELS BY NOT LESS THAN 50 FEET (15 METERS).
EXCEPTION NO. 1: THE REQUIRED SEPARATION SHALL NOT APPLY TO TANKS STORING FUELS THAT HAVE THE SAME CHEMICAL COMPOSITION.
EXCEPTION NO. 2: WHEN BOTH THE GASEOUS FUEL STORAGE AND DISPENSING EQUIPMENT ARE NOT LESS THAN 50 FEET (15 METERS) FROM ANY OTHER ABOVEGROUND MOTOR FUEL STORAGE OR DISPENSING EQUIPMENT, THE REQUIREMENTS OF THE
R 29.4601 ET SEQ.; NFPA 57, LIQUEFIED NATURAL GAS VEHICULAR FUEL SYSTEMS CODE; OR R 29.4001 ET SEQ., WHICHEVER IS APPLICABLE, SHALL APPLY.

R 29.5336 SPECIFIC REQUIREMENTS FOR LPG DISPENSING DEVICES.
RULE 336. SECTION 12.5.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
12.5.1 DISPENSING DEVICES FOR LPG SHALL MEET ALL APPLICABLE REQUIREMENTS OF
R 29.4001 ET SEQ. AND SHALL INCORPORATE A DISPENSING NOZZLE THAT RELEASES NOT MORE THAN 2 CENTIMETERS ^{3} (CM^3) OF LIQUID LPG UPON DISCONNECTION.

R 29.5337 SCOPE.
RULE 337. SECTIONS 13.1 AND 13.1.1 ADDED TO THE FL/CL CODE AS FOLLOWS:
13.1 SCOPE. THIS CHAPTER SHALL APPLY TO THE STORAGE OF CLASS I, CLASS II, AND CLASS IIIA LIQUIDS IN TANKS THAT HAVE A 1,100 GALLON (4,180 LITERS) CAPACITY OR LESS AT OUTSIDE LOCATIONS WHICH PRESENT A LOWER FIRE RISK THAN COMPLIANCE WITH ALL THE REQUIREMENTS OF PART 2 OF THESE RULES AND CHAPTERS 1 THROUGH 12 OF THIS PART.
13.1.1 ALL OF THE FOLLOWING ARE RESTRICTIONS FOR THE APPLICATION OF THIS CHAPTER:
(A) THE TANK SHALL BE LOCATED MORE THAN 40 FEET (12 METERS) FROM BUILDINGS AND PROPERTY LINES OF ADJACENT PROPERTIES THAT CAN BE BUILT UPON.
(B) THE SEPARATION DISTANCE IS SHALL BE MORE THAN 25 FEET (7.6 METERS) BETWEEN THE TANK AND THE CLOSER EDGE OF A PUBLIC WAY.
(C) THE TANK SHALL BE LOCATED MORE THAN 100 FEET (30 METERS) FROM A BUILDING USED FOR PUBLIC ASSEMBLAGE FOR 50 OR MORE PEOPLE.
(D) ANY SOURCE OF IGNITION, SHALL BE MORE THAN 40 FEET (12 METERS) FROM THE TANK.
(E) THE TANK SHALL BE MORE THAN 50 FEET (15 METERS) FROM A SINGLE-FAMILY DRINKING WELL, 75 FEET (23 METERS) FROM TYPE II AND III NON-COMMUNITY DRINKING WATER WELLS, AND 200 FEET (61 METERS) FROM A TYPE I COMMUNITY OR TYPE IIA NON-COMMUNITY DRINKING WATER WELL.
(F) THE TANK SHALL BE MORE THAN 50 FEET (15 METERS) FROM A STORM DRAIN, SURFACE WATER, OR DESIGNATED WETLAND, UNLESS SOME OTHER ENGINEERING CONTROL EXISTS SO THAT A RELEASE WOULD BE CONTROLLED OR DIRECTED IN ANOTHER DIRECTION.
(G) THE TANK WILL NOT BE USED FOR RETAIL MOTOR VEHICLE FUELING.

R 29.5338 DESIGN, CONSTRUCTION, AND SITING OF TANKS.

RULE 338. SECTIONS 13.2.1, 13.2.1.1, 13.2.2, 13.2.3, 13.2.3.1, 13.2.4, 13.2.5, 13.2.5.1, AND 13.2.6 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

13.2.1 TANKS, WHETHER OF SINGLE OR DOUBLE WALL, SHALL BE OF SINGLE-COMPARTMENT DESIGN AND CONSTRUCTED OF STEEL IN ACCORDANCE WITH UNDERWRITERS LABORATORIES STANDARD 142 (UL 142), STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.3.

13.2.1.1 DOUBLE-WALLED TANKS SHALL COMPLY WITH SECTION 13.2.1 AND THE SECONDARY WALL SHALL BE OF EQUAL THICKNESS TO THE PRIMARY WALL.

13.2.2 EACH TANK SHALL BE PROVIDED WITH A FILL OPENING THAT IS EQUIPPED WITH A CLOSURE THAT IS DESIGNED TO BE LOCKED. THE FILL OPENING SHALL BE SEPARATE FROM THE VENT OPENING.

13.2.3 EACH SINGLE-WALL TANK, EACH PRIMARY TANK, AND THE INTERSTITIAL SPACE OF EACH DOUBLE WALL TANK SHALL BE PROVIDED WITH NORMAL AND EMERGENCY VENTING THAT COMPLIES WITH UL 142, STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.

13.2.3.1 VENTS SHALL BE ARRANGED TO DISCHARGE SO AS TO PREVENT LOCALIZED OVERHEATING OF OR DIRECT FLAME IMPINGEMENT ON ANY PART OF THE TANK IF VAPORS FROM THE VENT ARE IGNITED.

13.2.4 TANKS SHALL BE LOCATED OUTSIDE AND NOT LESS THAN 40 FEET (12 METERS) FROM ANY BUILDING. THEY SHALL ALSO BE LOCATED SO THAT ANY VEHICLE, EQUIPMENT, OR CONTAINER THAT IS FILLED DIRECTLY FROM THE TANK IS NOT LESS THAN 40 FEET (12 METERS) FROM ANY BUILDING.

13.2.5 TANKS THAT HAVE TOP OPENINGS ONLY SHALL BE MOUNTED AND EQUIPPED AS FOLLOWS:

(A) STATIONARY TANKS SHALL BE MOUNTED ON SOLID TIMBER, SOLID CEMENT BLOCKS, OR EQUIVALENT, SO AS TO PROTECT THE BOTTOM OF THE TANK FROM CORROSION DUE TO CONTACT WITH THE GROUND AND TO MAINTAIN THE TANK IN A STABLE CONDITION.

(B) MOVEABLE TANKS SHALL BE EQUIPPED WITH ATTACHED METAL LEGS THAT REST ON SHOES OR RUNNERS DESIGNED SO THAT THE TANK IS SUPPORTED IN A STABLE POSITION AND SO THAT THE TANK AND ITS SUPPORTS CAN BE MOVED AS A SINGLE UNIT.

(C) TANKS SHALL BE EQUIPPED WITH A TIGHTLY AND PERMANENTLY ATTACHED APPROVED PUMPING DEVICE AND HOSE.

(D) THE DISPENSER DEVICE SHALL BE MADE INOPERABLE TO PREVENT TAMPERING WHEN NOT IN USE.

(E) THE PUMP DISCHARGE SHALL BE EQUIPPED WITH AN EFFECTIVE ANTI-SIPHONING DEVICE OR THE DISCHARGE HOSE SHALL BE EQUIPPED WITH A SELF-CLOSING NOZZLE.

(F) SIPHONS, MANIFOLDS, OR INTERNAL PRESSURE DISCHARGE DEVICES ARE PROHIBITED.

13.2.5.1 TANKS ELEVATED FOR GRAVITY DISCHARGE SHALL BE MOUNTED AND EQUIPPED AS FOLLOWS:

(A) TANKS SHALL BE SUPPORTED ON STEEL OR WOOD SUPPORTS THAT HAVE ADEQUATE STRENGTH AND DESIGN TO PROVIDE STABILITY. ALTERNATELY, TANKS SHALL BE PERMITTED TO BE PLACED ON AN ELEVATED AREA TO PROVIDE THE NECESSARY ELEVATION, IF THE TANK IS SUPPORTED ON SOLID TIMBERS OR CEMENT BLOCKS 6 INCHES (150 MILLIMETERS) IN HEIGHT SO AS TO PROTECT THE BOTTOM OF THE TANK FROM CORROSION DUE TO CONTACT WITH THE GROUND AND TO MAINTAIN THE TANK IN A STABLE POSITION.

(B) DISCHARGE CONNECTORS SHALL BE MADE TO THE BOTTOM OR TO THE END OF THE TANK.

(C) THE DISCHARGE CONNECTION SHALL BE EQUIPPED WITH A VALVE THAT SHALL AUTOMATICALLY CLOSE IF THERE IS A FIRE BY MEANS OF OPERATION OF AN EFFECTIVE HEAT-ACTUATED DEVICE. THE VALVE SHALL BE LOCATED ADJACENT TO THE TANK. IF THE VALVE CANNOT BE OPERATED MANUALLY, AN ADDITIONAL VALVE THAT CAN BE OPERATED MANUALLY SHALL BE PROVIDED.

(D) THE DISCHARGE CONNECTION SHALL BE PROVIDED WITH AN APPROVED HOSE OF SUFFICIENT LENGTH FOR FILLING VEHICLES, EQUIPMENT, AND CONTAINERS TO BE SERVED BY THE TANK. THE HOSE SHALL BE PROVIDED WITH A SELF-CLOSING NOZZLE AT THE DISCHARGE END.

(E) THE DISCHARGE CONNECTION AT THE TANK SHALL BE EQUIPPED WITH A LOCKING VALVE SO THAT IT CAN BE PADLOCKED TO PREVENT TAMPERING.

13.2.6 EACH STORAGE SITE SHALL NOT HAVE MORE THAN 3 TANKS EACH OF 1,100 GALLONS (4,180 LITERS) OR LESS. STORAGE SITES ON THE SAME PROPERTY SHALL BE SEPARATED BY A MINIMUM DISTANCE OF 100 FEET (30 METERS). TANKS AT EACH STORAGE SITE SHALL BE SEPARATED BY A MINIMUM DISTANCE OF 3 FEET (1 METER).

R 29.5339 CONTAINMENT AND SPILL PREVENTION.

RULE 339. SECTIONS 13.3.1, 13.3.2, 13.3.2.1, 13.3.3, AND 13.3.4 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

13.3.1 AT A MINIMUM, EACH AREA WHERE LIQUIDS ARE TRANSFERRED FROM THE TANK TO A VEHICLE, EQUIPMENT, OR CONTAINER SHALL BE PROTECTED BY AN IMPERVIOUS SURFACE, COMPATIBLE WITH THE PRODUCT TRANSFERRED, TO PREVENT SPILLS FROM ENTERING THE GROUNDWATER, SURFACE WATER, OR SUBSURFACE SOILS.

13.3.2 WHERE SINGLE-WALL TANKS ARE PROVIDED WITH SECONDARY CONTAINMENT, THE TANKS SHALL BE IN COMPLIANCE WITH SECTION 2.3.2.3.2 OF PART 2 OF THE FL/CL CODE.

13.3.2.1 WHEN PREVENTION OF RAIN OR SNOW ACCUMULATION IN THE DIKED AREA IS DESIRED, A ROOF OR CANOPY MAY BE CONSTRUCTED OVER THE DIKED AREA IF ALL OF THE FOLLOWING CONDITIONS ARE MET:

(A) THE ROOF, CANOPY, AND THEIR SUPPORTS ARE CONSTRUCTED OF NONCOMBUSTIBLE MATERIAL. THE ROOF AND CANOPY SUPPORTS CANNOT BE LOCATED INSIDE THE DIKED WALL.

(B) THE LOWEST ELEVATION OF THE ROOF OR CANOPY SHALL NOT BE LESS THAN 6 FEET (1.8 METER) FROM THE TOP OF THE TANK.

(C) THE NORMAL TANK VENT IS EXTENDED THROUGH THE ROOF OR CANOPY.

(D) THE ROOF OR CANOPY IS CONSTRUCTED IN SUCH A WAY THAT IT WILL NOT ALLOW FOR VAPORS TO ACCUMULATE UNDER THE CANOPY OR ROOF.
13.3.3 DOUBLE-WALL OR PROTECTED TANKS ARE NOT ALLOWED TO BE IN A DIKED AREA. A ROOF OR CANOPY IS ALLOWED TO BE CONSTRUCTED OVER A SINGLE, DOUBLE-WALL, OR A PROTECTED TANK IF THE CONSTRUCTION MEETS THE REQUIREMENTS OF SECTION 13.3.2.1.
13.3.4 A ROOF OR A CANOPY IS ALLOWED TO BE CONSTRUCTED OVER A LIQUID TRANSFER AREA IF THE CONSTRUCTION MEETS THE REQUIREMENTS OF SECTION 13.3.2.1.

R 29.5340 MARKING.
RULE 340. SECTIONS 13.4.1, 13.4.2, AND 13.4.3 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
13.4.1 TANKS SHALL BE CONSPICUOUSLY MARKED WITH THE NAME OF THE PRODUCT CONTAINED AND WITH THE FOLLOWING MARKING: “FLAMMABLE (OR COMBUSTIBLE WHEN APPROPRIATE) – KEEP FIRE AND FLAME AWAY.”
13.4.2 TANKS SHALL ALSO BEAR THE FOLLOWING MARKING: “KEEP 40 FEET FROM BUILDINGS.”
13.4.3 ALL LETTERING ON SIGNAGE SHALL BE 3 INCHES (75 MM) OR MORE.

R 29.5341 FIRE PREVENTION AND CONTROL.
RULE 341. SECTIONS 13.5.1 AND 13.5.2 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
13.5.1 OPEN FLAMES AND SMOKING MATERIALS SHALL NOT BE PERMITTED IN THE STORAGE AREA.
13.5.2 THE AREA WITHIN 10 FEET (3 METERS) OF THE TANK SHALL BE KEPT FREE OF COMBUSTIBLE MATERIALS.

PART 4. AMENDMENTS TO THE STANDARD FOR THE INSTALLATION OF OIL-BURNING EQUIPMENT

R 29.5401 PROHIBITIONS.
RULE 401. SECTIONS 1.8.1, 1.8.2, 1.8.3, 1.8.4, AND 1.8.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:
1.8.1 UPON NOTIFICATION BY THE DEPARTMENT, A PERSON SHALL NOT DELIVER ANY LIQUID INTO A STORAGE TANK SYSTEM UNDER ANY CIRCUMSTANCES THAT ARE PROHIBITED BY THESE RULES IF A TANK IS NOT IN COMPLIANCE WITH THESE RULES. THE NOTIFICATION MAY INCLUDE VERBAL OR WRITTEN COMMUNICATION OR AN AFFIXED WRITTEN NOTIFICATION ON THE STORAGE TANK SYSTEM.
1.8.2 A PERSON SHALL NOT TAMPER WITH, REMOVE, OR DISREGARD WRITTEN NOTIFICATION AFFIXED TO THE STORAGE TANK SYSTEM.
1.8.3 ANY STORAGE TANK SYSTEM OR PRACTICE THAT IS NOT IN COMPLIANCE WITH THESE RULES SHALL BE CONSIDERED TO BE IN VIOLATION OF THESE RULES.
1.8.4 AN OWNER OR OPERATOR SHALL NOT CONTINUE TO USE A STORAGE TANK SYSTEM THAT IS CAUSING A RELEASE AND SHALL EXPEDITIOUSLY EMPTY THE SYSTEM OR THE COMPONENT THAT IS CAUSING THE RELEASE UNTIL THE SYSTEM IS REPAIRED OR REPLACED.

1.8.5 THE DEPARTMENT MAY ORDER, AT THE EXPENSE OF THE OWNER, A TIGHTNESS TEST OF THE STORAGE TANK SYSTEM WHEN THERE IS REASON TO BELIEVE THAT THE STORAGE TANK SYSTEM IS LEAKING.

R 29.5402 REFERENCED PUBLICATIONS.

RULE 402. SECTION 2.1.2.5 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 2.1.2.7 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

2.1.2.5 UL PUBLICATIONS. UNDERWRITERS LABORATORIES INC., 333 PFINGSTEN ROAD, NORTHBROOK, IL 60062.

UL 2085, STANDARD FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, 1997 EDITION.

2.1.2.7 STI PUBLICATIONS. STEEL TANK INSTITUTE, 570 OAKWOOD ROAD, LAKE ZURICH, IL 60047.

STI ACT 100, SPECIFICATION FOR THE FABRICATION OF FRP CLAD/COMPOSITE UNDERGROUND STORAGE TANKS, INSTALLATION CHECK LIST, AND RECORD OF INSTALLATION.

STI PERMATANK, SPECIFICATION F922 FOR THE FABRICATION OF A DOUBLE WALL UST.

STI STI-P3, SPECIFICATION FOR CATHODICALLY PROTECTED STEEL UNDERGROUND STORAGE TANKS, INSTALLATION INSTRUCTIONS, STANDARDS FOR DUAL-WALL UNDERGROUND STEEL TANKS.

R 29.5403 DEFINITIONS.

RULE 403. SECTIONS 3.2.1 AND 3.2.2 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 3.2.2(A) AND 3.2.2(B) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

3.2.1 APPROVED. ACCEPTABLE TO THE DEPARTMENT.

3.2.2 AUTHORITY HAVING JURISDICTION. THE DEPARTMENT.

3.2.2(A) DEPARTMENT. DEPARTMENT OF ENVIRONMENTAL QUALITY.

3.2.2(B) DIRECTOR. THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

R 29.5404 GENERAL DEFINITIONS.

RULE 404. SECTION 3.3.30 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 3.3.58.6 AND 3.3.58.7 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

3.3.30 FUEL OIL. ANY HYDROCARBON OIL AS SPECIFIED BY ASTM D 396, STANDARD SPECIFICATION FOR FUEL OILS, OR THE CANADIAN GOVERNMENT SPECIFICATION BOARD, 3-GP-2E, HEATING FUEL OIL, ADOPTED BY REFERENCE IN SECTION 2.1.2.3, AND WHICH HAS A MINIMUM FLASH POINT OF 100 FAHRENHEIT (38 CELSIUS). LIQUIDS THAT HAVE A FLASH POINT OF 200 FAHRENHEIT (93 CELSIUS) OR MORE AND ARE STORED IN ABOVEGROUND TANKS ARE NOT COVERED IN THIS PART. USED OIL UNLESS TESTED AND IN COMPLIANCE WITH THE FLASH POINT REQUIREMENT, SHALL NOT BE INCLUDED IN THIS DEFINITION.

3.3.58.6 AST SYSTEM. A TANK OR COMBINATION OF TANKS, INCLUDING THE PIPES THAT ARE CONNECTED TO THE TANK, TANKS, OR ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN USED TO CONTAIN AN

ACCUMULATION OF LIQUIDS AND WHICH HAS LESS THAN 10% OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK, OR TANKS, BENEATH THE SURFACE OF THE GROUND.

3.3.58.7 UST SYSTEM. A TANK OR COMBINATION OF TANKS, INCLUDING THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS OR UNDERGROUND ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN, USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS 10% OR MORE OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS, BENEATH THE SURFACE OF THE GROUND.

R 29.5405 INSTALLATION OF OIL-BURNING APPLIANCES AND EQUIPMENT.

RULE 405. SECTION 4.3.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 4.3.1.1, 4.3.1.2, AND 4.3.1.3 ARE ADDED TO THE FL/CL CODE AS FOLLOWS: 4.3.1 AN ABOVEGROUND STORAGE TANK SYSTEM INSTALLATION APPLICATION SHALL MEET THE REQUIREMENTS OF SECTION 1.11 OF PART 2 OF THESE RULES.

4.3.1.1 A HEATING FUEL STORAGE TANK SYSTEM THAT HAS A CAPACITY OF MORE THAN 1,100 GALLONS (4,180 LITERS) SHALL NOT BE INSTALLED WITHIN THE FOLLOWING DISTANCES OF THE FOLLOWING ITEMS:

(1)FIFTY FEET (15 METERS) FROM A SINGLE-FAMILY DRINKING WATER WELL.

(2)SEVENTY-FIVE FEET (22.5 METERS) FROM A TYPE IIB NONCOMMUNITY OR TYPE III PUBLIC DRINKING WATER WELL.

(3)TWO HUNDRED FEET (61 METERS) FROM A TYPE I COMMUNITY OR TYPE IIA NONCOMMUNITY PUBLIC DRINKING WATER WELL.

ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED WITHIN 300 FEET (92 METERS) FROM SINGLE-FAMILY DRINKING WELLS, 800 FEET (244 METERS) FROM TYPE IIB AND III NON-COMMUNITY DRINKING WATER WELLS, 2,000 FEET (610 METERS) FROM TYPE I COMMUNITY OR TYPE IIA NON-COMMUNITY DRINKING WATER WELLS. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A DELINEATED WELLHEAD PROTECTION AREA. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A SOURCE WATER PROTECTION AREA CRITICAL ASSESSMENT ZONE, OR 300 FEET (92 METERS) FROM A SURFACE WATERSHED DELINEATED CRITICAL ASSESSMENT ZONE.

EXCEPTION: A PERSON MAY INSTALL AN AST SYSTEM IF IT IS A 1-FOR-1 REPLACEMENT AT AN ACTIVE ABOVEGROUND OR UNDERGROUND STORAGE TANK SYSTEM LOCATION WITHOUT BEING SUBJECT TO THE REQUIREMENTS OF THIS SECTION IF THE NEW AST IS IN COMPLIANCE WITH THE REQUIREMENTS OF THESE RULES FOR A NEW INSTALLATION AND IF THE NEW INSTALLATION IS NOT CLOSER TO A WELL THAN THE EXISTING INSTALLATION.

4.3.1.2 A TANK THAT HAS A CAPACITY OF MORE THAN 4,000 GALLONS (15,200 LITERS) SHALL NOT BE INSTALLED WITHIN THE CRITICAL ASSESSMENT ZONE AFTER THE EFFECTIVE DATE OF THESE RULES. A TANK WHICH HAS A CAPACITY OF 4,000 GALLONS (15,200 LITERS) OR LESS AND WHICH IS INSTALLED WITHIN THE CRITICAL ASSESSMENT

ZONE AFTER THE EFFECTIVE DATE OF THESE RULES SHALL HAVE LIQUIDTIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION IN COMPLIANCE WITH THIS PART.

EXCEPTION: TANKS MAY BE INSTALLED OR REPLACED WITHIN A CRITICAL ASSESSMENT ZONE IF ADDED TO AN ACTIVE TANK SYSTEM WHICH IS CURRENTLY IN OPERATION AND WAS OPERATIONAL BEFORE THE EFFECTIVE DATE OF THESE RULES. THE TANK MAY BE ADDED IF IT HAS LIQUIDTIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTION 2.3.2.3 AND SECTION 2.6.1 OF PART 2 OF THESE RULES. IN ADDITION, BEFORE THE INSTALLATION OF ANY NEW ABOVEGROUND STORAGE TANK, THE FACILITY SHALL BE IN COMPLIANCE WITH SECTION 2.3.2.7 OF PART 2 OF THESE RULES.

4.3.1.3 THE REQUIREMENTS OF SUBSECTION 4.3.1.2 MAY BE MODIFIED IF A PERSON CAN DEMONSTRATE THAT THE ABOVEGROUND STORAGE TANK INSTALLATION IS, OR IS NOT, WITHIN A SOURCE WATER PROTECTION AREA, WELLHEAD PROTECTION AREA, OR WELLHEAD ZONE OF INFLUENCE BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5406 BASIC DESIGN AND CONSTRUCTION OF TANKS.

RULE 406. SECTIONS 7.2.2, 7.2.8, AND 7.2.9 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 7.2.8.4 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

7.2.2 TANKS MEETING THE REQUIREMENTS OF PART 2 OF THESE RULES SHALL BE DEEMED AS MEETING THE REQUIREMENTS OF SECTION 7.2.

7.2.8 TANKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH APPROVED STANDARDS OF DESIGN. ATMOSPHERIC TANKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH 1 OF THE FOLLOWING OR ITS EQUIVALENT.

(A) API STANDARD 650, SPECIFICATIONS FOR WELDED STEEL TANKS FOR OIL STORAGE, ADOPTED BY REFERENCE IN SECTION 2.1.2.1.

(B) ASTM D 4021, STANDARD SPECIFICATION FOR GLASS-FIBER-REINFORCED POLYESTER UNDERGROUND PETROLEUM STORAGE TANKS, ADOPTED BY REFERENCE IN SECTION 2.1.2.3.

(C) UL 58, STANDARD FOR STEEL UNDERGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.

(D) UL 80, STANDARD FOR STEEL INSIDE TANKS FOR OIL BURNER FUEL, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.

(E) UL 142, STANDARD FOR STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.

(F) UL 1316, STANDARD FOR GLASS FIBER-REINFORCED PLASTIC UNDERGROUND STORAGE TANKS FOR PETROLEUM PRODUCTS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.

(G) UL 2258, STANDARD FOR TANKS FOR OIL BURNER FUEL-NONMETALLIC, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.

(H) STI ACT 100, SPECIFICATION FOR THE FABRICATION OF FRP CLAD/COMPOSITE UNDERGROUND STORAGE TANKS, INSTALLATION CHECK LIST, AND RECORD OF INSTALLATION, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.

(I) STI STI-P3, SPECIFICATION FOR CATHODICALLY PROTECTED STEEL UNDERGROUND STORAGE TANKS, INSTALLATION INSTRUCTIONS, STANDARDS FOR DUAL-WALL UNDERGROUND STEEL TANKS, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.
(J) UL2085, STANDARD FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.
7.2.8.4 EACH TANK SHALL BE INSTALLED IN COMPLIANCE WITH ITS DESIGN AND ITS LISTING.
7.2.9 WHERE A TANK IS LOCATED IN AN AREA SUBJECT TO FLOODING, THE REQUIREMENTS OF SECTIONS 2.3.2.6 AND 2.3.3.5.1 OF PART 2 OF THESE RULES, WHICHEVER IS APPLICABLE, SHALL BE MET.

R 29.5407 INSTALLATION OF UNDERGROUND TANKS (INCLUDING BURIED TANKS UNDER BUILDINGS).
RULE 407. SECTIONS 7.4.2, 7.4.3, 7.4.4, 7.4.7, AND 7.4.8 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 7.4.41 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
7.4.2 TANKS INSTALLED UNDERGROUND, INCLUDING TANKS INSTALLED UNDER BUILDINGS, SHALL MEET THE REQUIREMENTS OF 1 OF THE FOLLOWING:
(A) UL 58, STANDARD FOR STEEL UNDERGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.
(B) UL 1316, STANDARD FOR GLASS FIBER-REINFORCED PLASTIC UNDERGROUND STORAGE TANKS FOR PETROLEUM PRODUCTS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.
(C) ASTM D 4021, STANDARD SPECIFICATION FOR GLASS-FIBER-REINFORCED POLYESTER UNDERGROUND PETROLEUM STORAGE TANKS, ADOPTED BY REFERENCE IN SECTION 2.1.2.3.
(D) STI ACT 100, SPECIFICATION FOR THE FABRICATION OF FRP CLAD/COMPOSITE UNDERGROUND STORAGE TANKS, INSTALLATION CHECK LIST, AND RECORD OF INSTALLATION, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.
(E) STI STI-P3, SPECIFICATION FOR CATHODICALLY PROTECTED STEEL UNDERGROUND STORAGE TANKS, INSTALLATION INSTRUCTIONS, STANDARDS FOR DUAL-WALL UNDERGROUND STEEL TANKS, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.
(F) THE EXCEPTION TO 7.2.7.2 OF THIS STANDARD.
(G) STI PERMATANK, SPECIFICATION F922 FOR THE FABRICATION OF A DOUBLE WALL UST, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.
7.4.3 EXCAVATIONS FOR UNDERGROUND TANKS SHALL BE MADE WITH DUE CARE TO AVOID UNDERMINING THE FOUNDATIONS OF EXISTING STRUCTURES. UNDERGROUND TANKS OR TANKS UNDER BUILDINGS SHALL BE LOCATED WITH RESPECT TO EXISTING BUILDING FOUNDATIONS AND SUPPORTS SO THAT THE LOADS CARRIED BY THE LATTER CANNOT BE TRANSMITTED TO THE TANK. THE DISTANCE FROM ANY PART OF THE TANK TO THE NEAREST BASEMENT, PIT, OR PROPERTY LINE SHALL NOT BE LESS THAN 10 FEET (3 METERS).
7.4.4 UNDERGROUND TANKS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. THE INSTALLATION SHALL MEET ALL APPLICABLE

REQUIREMENTS OF PART 2 OF THESE RULES, INCLUDING THOSE FOR BURIAL DEPTH AND COVER AND FOR CORROSION CONTROL.
7.4.4.1 A TANK AND ITS PIPING SHALL BE PROTECTED AGAINST CORROSION IN ACCORDANCE WITH SECTION 2.2.6.1 OF PART 2 OF THESE RULES.
7.4.7 AN UNDERGROUND TANK SHALL BE PROVIDED WITH MEANS FOR GAUGING.
7.4.8 UNDERGROUND STORAGE TANKS THAT ARE NOT USED TO STORE LIQUIDS FOR MORE THAN 12 MONTHS SHALL BE PERMANENTLY CLOSED. UNDERGROUND TANKS THAT ARE TAKEN OUT OF SERVICE SHALL BE REMOVED OR PERMANENTLY CLOSED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 2.6.5 OF PART 2 OF THESE RULES.

R 29.5408 INSTALLATION OF TANKS INSIDE OF BUILDINGS.
RULE 408. SECTION 7.5.7 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
7.5.7 TANKS BETWEEN 10 GALLONS AND 660 GALLONS (38 LITERS AND 2,500 LITERS) CAPACITY SHALL USE THE OPENING IN THE BOTTOM AS A BURNER SUPPLY CONNECTION AND BE ARRANGED AS FOLLOWS:
(A) THE TANK SHALL BE PITCHED TOWARD THE OPENING WITH A SLOPE OF NOT LESS THAN ¼ INCH PER FOOT (20 MILLIMETERS/METER) OF LENGTH.
(B) THE TANK SHALL BE PROVIDED WITH A SHUTOFF VALVE INSTALLED IMMEDIATELY ADJACENT TO THE BURNER SUPPLY CONNECTION AT THE BOTTOM OF THE TANK.

R 29.5409 INSTALLATION OF OUTSIDE ABOVEGROUND TANKS.
RULE 409. SECTION 7.6.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
7.6.3 AN ABOVEGROUND TANK THAT HAS A CAPACITY OF MORE THAN 660 GALLONS (2,500 LITERS) SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS OF PART 2 OF THESE RULES.

R 29.5410 TANK HEATING SYSTEMS.
RULE 410. SECTION 7.7.5 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
7.7.5 THE TANK AND ITS COMPONENTS SHALL BE OPERATED AND MAINTAINED WITHIN ITS RATED DESIGN.

R 29.5411 TESTING AND MAINTENANCE.
RULE 411. SECTION 7.9.4 IS ADDED TO THE FL/CL CODE AS FOLLOWS:
7.9.4 EACH TANK SHALL BE MAINTAINED TO ENSURE THAT WATER IS REMOVED IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS.

R 29.5412 ABANDONMENT AND REMOVAL FROM SERVICE OF TANKS AND RELATED EQUIPMENT.
RULE 412. SECTION 7.10 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
TANKS NOT USED TO STORE LIQUIDS FOR 12 MONTHS SHALL BE PERMANENTLY CLOSED BY COMPLYING WITH THE REQUIREMENTS OF SECTIONS 2.6.4 AND 2.6.5 OF PART 2 OF THESE RULES.

R 29.5413 CONTROL OF SPILLS FROM ABOVEGROUND TANKS.

RULE 413. SECTIONS 7.11.1, 7.11.2, 7.11.3, 7.11.4, AND 7.11.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

7.11.1 CONTROL OF SPILLS FROM ABOVEGROUND TANKS SHALL COMPLY WITH SECTION 2.3.2.3 OF PART 2 OF THESE RULES.

7.11.2 REMOTE IMPOUNDING. REMOTE IMPOUNDING SHALL COMPLY WITH SECTION 2.3.2.3.1 OF PART 2 OF THESE RULES.

7.11.3 IMPOUNDING AROUND TANKS BY DIKING. IMPOUNDING AROUND TANKS BY DIKING SHALL COMPLY WITH SECTION 2.3.2.3.2 OF PART 2 OF THESE RULES.

7.11.4 SECONDARY CONTAINMENT TANKS. SECONDARY CONTAINMENT TANKS SHALL COMPLY WITH SECTION 2.3.2.3.3 OF PART 2 OF THESE RULES.

7.11.5 EXISTING STORAGE TANKS. ALL EXISTING TANKS WHICH HAVE A CAPACITY OF MORE THAN 1,100 GALLONS (4,180 LITERS) AND WHICH ARE NOT IN FULL COMPLIANCE WITH THE REQUIREMENTS FOR NEW TANKS UNDER THESE RULES SHALL MEET 1 OF THE REQUIREMENTS IN SECTION 2.3.2.7 OF PART 2 OF THESE RULES.

R 29.5414 TANK FILL PIPING.

RULE 414. SECTION 8.3.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 8.3.4.1, 8.3.4.2, 8.3.4.3, AND 8.3.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

8.3.1 THE FILL PIPE SHALL BE LARGE ENOUGH AND SO LOCATED AS TO PERMIT READY FILLING IN A MANNER THAT PREVENTS SPILLS. THE FILL PIPE SHALL TERMINATE OUTSIDE THE BUILDING AT A POINT NOT LESS THAN 2 FEET (0.6 METERS) FROM ANY BUILDING AT THE SAME OR LOWER LEVEL. THE FILL PIPE SHALL TERMINATE IN A MANNER THAT PREVENTS SPILLS WHEN THE FILLING HOSE IS DISCONNECTED. THE END OF THE FILL PIPE SHALL BE EQUIPPED WITH A TIGHT METAL COVER DESIGNED TO DISCOURAGE TAMPERING AND SHALL BE IDENTIFIED AS A FUEL OIL FILL.

EXCEPTION: A CRANKCASE OIL OR USED OIL FILL PIPE FOR A TANK DIRECTLY SERVING A USED OIL FIRED BURNER AND APPLIANCE SHALL BE PERMITTED TO TERMINATE INDOORS IN ACCORDANCE WITH PART 3 OF THESE RULES. IF THE FILL PIPE HAS A FUNNEL-TYPE OPENING, THEN IT SHALL BE PROVIDED WITH A READILY ACCESSIBLE MANUAL SHUTOFF VALVE OF THE ¼-TURN-TO-CLOSE TYPE, BETWEEN THE FUNNEL-TYPE OPENING AND THE TANK.

8.3.4.1 TANK VEHICLE AND TANK CAR LOADING AND UNLOADING FACILITIES SHALL BE SEPARATE FROM ABOVEGROUND TANKS, WAREHOUSES, OTHER PLANT BUILDINGS, OR THE NEAREST LINE OF ADJOINING PROPERTY THAT CAN BE BUILT UPON BY A DISTANCE OF NOT LESS THAN 15 FEET (4.6 METERS) FOR CLASS II AND CLASS III LIQUIDS, MEASURED FROM THE NEAREST FILL SPOUT OR TRANSFER CONNECTION. THESE DISTANCES SHALL BE ACHIEVED BY THE USE OF FIXED PIPING BETWEEN THE TANK AND THE TRANSFER CONNECTION. THESE DISTANCES SHALL BE PERMITTED TO BE REDUCED BY UTILIZING AN AUTOMATIC FIXED FIRE PROTECTION SYSTEM OR FIRE-RATED BARRIER RATED FOR 2 OR MORE HOURS. BUILDINGS FOR PUMPS OR SHELTERS FOR PERSONNEL SHALL BE PERMITTED TO BE A PART OF THE FACILITY.

EXCEPTION 1: A FIRE PROTECTED TANK OR A TANK IN A VAULT DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR THE LOADING AND UNLOADING RISERS.

EXCEPTION 2: A TANK WHICH HAS A CAPACITY OF 3,000 GALLONS (11,340 LITERS) OR LESS, WHICH IS LOCATED 10 FEET (3.1 METERS) FROM ANY BUILDING, AND WHICH IS PROVIDED WITH SPILL AND AUDIBLE OVERFILL PROTECTION OR OTHER MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT, DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR LOADING AND UNLOADING RISERS.

8.3.4.2 PROVISIONS SHALL BE MADE TO PREVENT LIQUIDS THAT CAN BE SPILLED AT A LOADING OR UNLOADING FACILITY FROM ENTERING A PUBLIC SEWER, GROUNDWATER, SURFACE WATER, SUBSURFACE SOILS, OR THE IMPOUNDMENT AREA FOR THE TANKS, OTHER THAN REMOTE IMPOUNDING. IF ADEQUATE SPILL PROTECTION IS NOT PROVIDED AT THE LOADING AND UNLOADING AREAS, A SPILL PAD SHALL BE PROVIDED WITH A FIXED SOURCE OF SPILL CONTAINMENT AT THE STATIONARY DRY-BREAK CONNECTION. A CONNECTION TO A PUBLIC SEWER, DRAIN, OR SURFACE WATER SHALL BE PROVIDED WITH A TRAP OR SEPARATOR. THE TRAPS, SEPARATORS, HOLDING TANKS, OR OTHER APPROVED MEANS SHALL BE PROPERLY DESIGNED AND MAINTAINED ACCORDING TO THE MANUFACTURERS OPERATING INSTRUCTIONS BY THE OWNER OR OPERATOR AND SHALL BE EMPTIED OF ACCUMULATED PRODUCT, FOR WHICH IT IS INTENDED, BEFORE REACHING SAFE STORAGE CAPACITY. EXISTING LOCATIONS SHALL BE EQUIPPED WITH SUCH PROVISIONS WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES.

EXCEPTION: A TANK THAT HAS THE CAPACITY OF 1,100 GALLONS (4,180 LITERS) OR LESS DOES NOT HAVE TO BE IN COMPLIANCE WITH SECTION 8.3.4.2.

8.3.4.3 A LOADING OR UNLOADING FACILITY THAT HAS A CANOPY, ROOF, OR OTHERWISE SHELTERED FROM THE WEATHER SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND HAVE PRIOR APPROVAL BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT. THE CANOPY OR ROOF SHALL NOT LIMIT THE DISSIPATION OF HEAT OR DISPERSION OF FLAMMABLE VAPORS AND CANNOT RESTRICT FIREFIGHTING ACCESS AND CONTROL.

8.3.5 A FILL PIPE SHALL BE REMOVED OR PERMANENTLY SEALED AND CAPPED WHEN NO LONGER IN USE IN COMPLIANCE WITH SECTION 2.6.5.3 OF PART 2 OF THESE RULES.

R 29.5415 PUMPS, VALVES, GAUGES, AND APPURTENANCES.

RULE 415. SECTION 8.7.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

8.7.3 INSIDE TANKS PROVIDED WITH FILL VENT PIPES USED FOR FUEL OIL SHALL BE PROVIDED WITH A DEVICE TO INDICATE, AT THE FILL POINT, EITHER VISUALLY OR AUDIBLY, WHEN THE OIL IN THE TANK HAS REACHED A PREDETERMINED SAFE LEVEL.

R 29.5416 TESTING AND MAINTENANCE.

RULE 416. SECTION 8.8.3 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

8.8.3 VENTS SHALL BE PROPERLY MAINTAINED TO ENSURE THAT SECTIONS 8.6.3 AND 8.6.4 ARE MET.

R 29.5417 CENTRALIZED OIL DISTRIBUTION SYSTEMS.
RULE 417. SECTION 9.2.7 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
9.2.7 ABOVEGROUND TANKS SHALL BE PROVIDED WITH SPILL CONTROL BY MEANS OF DIKING MEETING THE REQUIREMENTS OF SECTION 2.3.2.3 OF PART 2 OF THESE RULES.

R 29.5418 INSTALLATION CLEARANCES.
RULE 418. SECTION 12.6.2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
12.6.2 USED OIL-BURNING APPLIANCES SHALL BE SEPARATED FROM FLAMMABLE OR COMBUSTIBLE LIQUIDS IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF PART 3 OF THESE RULES.

R 29.5419 USED OIL SUPPLY TANKS.
RULE 419. SECTIONS 12.9.1, 12.9.2, AND 12.9.3 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES:
12.9.1 SUPPLY TANKS FOR ABOVEGROUND INDOOR SUPPLY OF USED OIL-BURNING APPLIANCES SHALL BE LISTED IN ACCORDANCE WITH UL 80, STANDARD FOR STEEL INSIDE TANKS FOR OIL BURNER FUEL, UL 142, ADOPTED BY REFERENCE IN SECTION 2.1.2.5, STANDARD FOR STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, OR UL 2085, ADOPTED BY REFERENCE IN SECTION 2.1.25, STANDARD FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.25.
EXCEPTION: SECONDARY CONTAINMENT-TYPE TANKS WHICH MEET THE REQUIREMENTS OF SECTION 7.2.7.2 AND WHICH ARE LISTED FOR USE WITH USED OIL SHALL BE PERMITTED TO BE USED FOR ABOVEGROUND INDOOR SUPPLY.
12.9.2 SUPPLY TANKS FOR ABOVEGROUND INDOOR SUPPLY OF USED OIL-BURNING APPLIANCES SHALL BE LISTED IN ACCORDANCE WITH UL 80, STANDARD FOR STEEL INSIDE TANKS FOR OIL BURNER FUEL, UL 142, STANDARD FOR STEEL ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, OR UL 2085, STANDARDS FOR PROTECTED ABOVEGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, ADOPTED BY REFERENCE IN SECTION 2.1.2.5.
12.9.3 SUPPLY TANKS FOR UNDERGROUND SUPPLY OF USED OIL TO A USED OIL-BURNING APPLIANCE SHALL BE LISTED IN ACCORDANCE WITH UL 58, STANDARD FOR STEEL UNDERGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS, UL 1316, STANDARD FOR GLASS-FIBER REINFORCED PLASTIC UNDERGROUND STORAGE TANKS FOR PETROLEUM PRODUCTS, UL STANDARDS ADOPTED BY REFERENCE IN SECTION 2.1.2.5.
STI ACT-100, SPECIFICATION FOR THE FABRICATION OF FRP CLAD/COMPOSITE UNDERGROUND STORAGE TANKS, INSTALLATION CHECK LIST, AND RECORD OF INSTALLATION, STI STI-P3, SPECIFICATION FOR CATHODICALLY PROTECTED STEEL UNDERGROUND STORAGE TANKS, INSTALLATION INSTRUCTIONS, STI STANDARDS, OR STI PERMATANK, SPECIFICATION F922 FOR THE FABRICATION OF A DOUBLE WALL UST, ADOPTED BY REFERENCE IN SECTION 2.1.2.7.

PART 5. AMENDMENTS TO STANDARD FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES

R 29.5501 PURPOSE AND SCOPE.

RULE 501. SECTION 1-1.3 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

1-1.3 PROVISIONS OF THIS PART SHALL NOT PROHIBIT THE TEMPORARY USE, FOR UP TO 12 MONTHS, OF A PORTABLE GENERATOR UNIT AND TANK FOR SUPPLEMENTAL POWER LOCATED OUTSIDE ON THE PREMISES WHICH IS NOT NORMALLY ACCESSIBLE TO THE PUBLIC. THE INSTALLATION SHALL ONLY BE MADE WITH THE APPROVAL OF THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5502 DISCRETIONARY POWERS OF THE DEPARTMENT.

RULE 502. SECTIONS 1-2.1, 1-2.2(1), AND 1-2.2(2) ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1-2.1 NOTHING IN THIS FL/CL CODE SHALL BE INTENDED TO PREVENT THE USE OF SYSTEMS, METHODS, OR DEVICES OF EQUIVALENT OR SUPERIOR QUALITY, STRENGTH, FIRE RESISTANCE, EFFECTIVENESS, DURABILITY, ENVIRONMENTAL PROTECTION CAPABILITY, OR SAFETY OVER THOSE PRESCRIBED BY THIS FL/CL CODE, IF TECHNICAL DOCUMENTATION IS SUBMITTED TO THE DEPARTMENT TO DEMONSTRATE EQUIVALENCY AND THE SYSTEM, METHOD, OR DEVICE IS APPROVED FOR THE INTENDED PURPOSE.

1-2.2(1) AN OWNER OR OPERATOR MAY MAKE AN APPLICATION FOR A VARIANCE TO THE RULES BY APPLYING TO THE DEPARTMENT WITH A SATISFACTORY EXPLANATION AS TO WHY COMPLIANCE IS NOT POSSIBLE. THE DEPARTMENT MAY APPROVE A VARIANCE UPON FINDING THAT THE VARIANCE IS BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, WELFARE, AND PROPERTY AND THE ENVIRONMENT.

1-2.2(2) A PERSON AGGRIEVED BY A FINAL DECISION OF THE DEPARTMENT ON A REQUEST FOR VARIANCE MAY APPEAL TO THE CIRCUIT COURT WITHIN 21 DAYS OF THE DECISION.

R 29.5503 INSTALLATION APPLICATION SUBMITTAL REQUIREMENTS.

RULE 503. SECTIONS 1-6.1, 1-6.2, 1-6.3, AND 1-6.4 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1-6.1 AN ABOVEGROUND STORAGE TANK SYSTEM INSTALLATION APPLICATION SHALL MEET THE REQUIREMENTS OF SECTION 1.11 OF PART 2 OF THESE RULES.

1-6.2 A FUEL STORAGE TANK SYSTEM, THAT HAS A CAPACITY OF MORE THAN 1,100 GALLONS (4,180 LITERS) SHALL NOT BE INSTALLED WITHIN THE FOLLOWING DISTANCES OF THE FOLLOWING ITEMS:

(A) FIFTY FEET (15 METERS) FROM A SINGLE-FAMILY DRINKING WATER WELL.

(B) SEVENTY-FIVE FEET (22.5 METERS) FROM A TYPE IIB NONCOMMUNITY OR TYPE III PUBLIC DRINKING WATER WELL.

(C) TWO HUNDRED FEET (61 METERS) FROM A TYPE I COMMUNITY OR TYPE IIA NONCOMMUNITY PUBLIC DRINKING WATER WELL.

ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED WITHIN 300 FEET (92 METERS) FROM SINGLE-FAMILY DRINKING WELLS, 800 FEET (244 METERS) FROM TYPE IIB AND III NONCOMMUNITY DRINKING WATER WELLS, OR 2,000 FEET (610 METERS) FROM TYPE I COMMUNITY OR TYPE IIA NONCOMMUNITY DRINKING WATER WELLS. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A DELINEATED WELLHEAD PROTECTION AREA. ABOVEGROUND STORAGE TANKS THAT DO NOT HAVE SECONDARY CONTAINMENT SHALL NOT BE INSTALLED IN A SOURCE WATER PROTECTION AREA CRITICAL ASSESSMENT ZONE OR 300 FEET (92 METERS) FROM A SURFACE WATERSHED DELINEATED CRITICAL ASSESSMENT ZONE.

EXCEPTION: A PERSON MAY INSTALL AN AST SYSTEM IF IT IS A 1 FOR 1 REPLACEMENT AT AN ACTIVE ABOVEGROUND OR UNDERGROUND STORAGE TANK SYSTEM LOCATION WITHOUT BEING SUBJECT TO THE REQUIREMENTS OF THIS SECTION; IF THE NEW AST IS IN COMPLIANCE WITH THE REQUIREMENTS OF THESE RULES FOR A NEW INSTALLATION, AND IF THE NEW INSTALLATION IS NOT CLOSER TO A WELL THAN THE EXISTING INSTALLATION.

1-6.3 A TANK THAT HAS A CAPACITY OF MORE THAN 4,000 GALLONS (15,200 LITERS) SHALL NOT BE INSTALLED WITHIN THE CRITICAL ASSESSMENT ZONE AFTER THE EFFECTIVE DATE OF THESE RULES. A TANK WHICH HAS A CAPACITY OF 4,000 GALLONS (15,200 LITERS) OR LESS AND WHICH IS INSTALLED WITHIN THE CRITICAL ASSESSMENT ZONE AFTER THE EFFECTIVE DATE OF THESE RULES SHALL HAVE LIQUIDTIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION IN COMPLIANCE WITH THIS PART.

EXCEPTION: TANKS MAY BE INSTALLED OR REPLACED WITHIN A CRITICAL ASSESSMENT ZONE, IF ADDED TO AN ACTIVE TANK SYSTEM WHICH IS CURRENTLY IN OPERATION AND WHICH WAS OPERATIONAL BEFORE THE EFFECTIVE DATE OF THESE RULES. THE TANK MAY BE ADDED IF IT HAS LIQUIDTIGHT SECONDARY CONTAINMENT AND OVERFILL PROTECTION THAT MEETS THE REQUIREMENTS OF SECTIONS 2.3.2.3 AND 2.6.1 OF PART 2 OF THESE RULES. IN ADDITION, BEFORE THE INSTALLATION OF ANY NEW ABOVEGROUND STORAGE TANK, THE FACILITY SHALL BE IN COMPLIANCE WITH SECTION 2.3.2.7 OF PART 2 OF THESE RULES.

1-6.4 THE REQUIREMENTS OF SECTION 1-6.3 MAY BE MODIFIED IF A PERSON CAN DEMONSTRATE THAT THE ABOVEGROUND STORAGE TANK INSTALLATION IS, OR IS NOT, WITHIN A SOURCE WATER PROTECTION AREA, WELLHEAD PROTECTION AREA, OR WELLHEAD ZONE OF INFLUENCE BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5504 STORAGE.

RULE 504. SECTION 1-7.1 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

1-7.1 LIQUIDS SHALL BE STORED IN TANKS, PORTABLE TANKS, BULK CONTAINERS, CONTAINERS, AND INTERMEDIATE BULK CONTAINERS IN COMPLIANCE WITH PART 2 OF THESE RULES. EACH TANK OR BULK CONTAINER SHALL BE INSTALLED IN COMPLIANCE WITH ITS DESIGN AND LISTING APPROVAL.

R 29.5505 DEFINITIONS.

RULE 505. SECTION 2-1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES TO THE DEFINITIONS OF: "APPROVED," "AUTHORITY HAVING JURISDICTION," AND "LISTED," AND BY ADDING THE DEFINITIONS "DEPARTMENT" AND "DIRECTOR."

2-1.1 "APPROVED" MEANS ACCEPTABLE TO THE DEPARTMENT.

2-1.2 "AUTHORITY HAVING JURISDICTION" MEAN THE DEPARTMENT.

2-1.3 "DEPARTMENT" MEANS THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

2-1.4 "DIRECTOR" MEANS THE DIRECTOR OF THE DEPARTMENT OF ENVIRONMENTAL QUALITY.

2-1.5 "LISTED" MEANS EQUIPMENT, MATERIALS, OR SERVICES INCLUDED IN A LIST PUBLISHED BY AN ORGANIZATION WHICH IS CONCERNED WITH EVALUATION OF PRODUCTS OR SERVICES, WHICH MAINTAINS PERIODIC INSPECTION OF PRODUCTION OF LISTED EQUIPMENT OR MATERIALS OR PERIODIC EVALUATION OF SERVICES, AND WHICH LISTS STATES WHERE THE EQUIPMENT, MATERIAL, OR SERVICE MEETS APPROPRIATE DESIGNATED STANDARDS OR HAS BEEN TESTED AND FOUND SUITABLE FOR A SPECIFIED PURPOSE. THE PRODUCT LISTINGS SHALL BE ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT.

R 29.5506 PROHIBITIONS.

RULE 506. SECTIONS 1-8.1 THROUGH 1-8.5 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

1-8.1 UPON NOTIFICATION BY THE DEPARTMENT A PERSON SHALL NOT DELIVER ANY LIQUID INTO A STORAGE TANK SYSTEM UNDER ANY CIRCUMSTANCES THAT ARE PROHIBITED BY THESE RULES OR IF A TANK IS NOT IN COMPLIANCE WITH THESE RULES. THE NOTIFICATION MAY INCLUDE VERBAL OR WRITTEN COMMUNICATION OR AN AFFIXED WRITTEN NOTIFICATION ON THE STORAGE TANK SYSTEM.

1-8.2 A PERSON SHALL NOT TAMPER WITH, REMOVE, OR DISREGARD WRITTEN NOTIFICATION AFFIXED TO THE STORAGE TANK SYSTEM.

1-8.3 ANY STORAGE TANK SYSTEM OR PRACTICE THAT IS NOT IN COMPLIANCE WITH THESE RULES SHALL BE CONSIDERED TO BE IN VIOLATION OF THESE RULES.

1-8.4 AN OWNER OR OPERATOR SHALL NOT CONTINUE TO USE A STORAGE TANK SYSTEM THAT IS CAUSING A RELEASE AND SHALL EXPEDITIOUSLY EMPTY THE SYSTEM OR THE COMPONENT THAT IS CAUSING THE RELEASE UNTIL THE SYSTEM IS REPAIRED OR REPLACED.

1-8.5 THE DEPARTMENT MAY ORDER, AT THE EXPENSE OF THE OWNER, A TIGHTNESS TEST OF THE STORAGE TANK SYSTEM WHEN THERE IS REASON TO BELIEVE THAT THE STORAGE TANK SYSTEM IS LEAKING.

R 29.5507 DEFINITION OF TERMS USED IN THIS STANDARD.

RULE 507. SECTION 2-2 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND ADDITIONS TO THE DEFINITIONS OF: "AST SYSTEM," "TANK SYSTEM," AND "UST SYSTEM."

2-2.1 AST SYSTEM. A TANK OR COMBINATION OF TANKS, INCLUDING THE PIPES THAT ARE CONNECTED TO THE TANK, TANKS, OR ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN, USED TO CONTAIN AN

ACCUMULATION OF LIQUIDS AND WHICH HAS LESS THAN 10% OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK, OR TANKS, BENEATH THE SURFACE OF THE GROUND.
2-2.2 TANK SYSTEM. AST SYSTEM OR UST SYSTEM.
2-2.3 UST SYSTEM. A TANK OR COMBINATION OF TANKS INCLUDING THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS OR UNDERGROUND ANCILLARY EQUIPMENT CONTAINMENT SYSTEMS, IF ANY, WHICH IS, WAS, OR MAY HAVE BEEN, USED TO CONTAIN AN ACCUMULATION OF LIQUIDS AND WHICH HAS 10% OR MORE OF ITS VOLUME, INCLUDING THE VOLUME OF THE UNDERGROUND PIPES THAT ARE CONNECTED TO THE TANK OR TANKS, BENEATH THE SURFACE OF THE GROUND.

R 29.5508 GAS PIPING.
RULE 508. SECTION 4-1.1.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
4-1.1.3 LP-GAS SYSTEMS, WHETHER LIQUID OR VAPOR PHASE, SHALL BE INSTALLED IN ACCORDANCE WITH R 29.4001 ET SEQ.

R 29.5509 DESIGN AND CONSTRUCTION OF LIQUID-FUELED TANKS.
RULE 509. SECTION 5-1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 5-1, EXCEPTION 1, EXCEPTION 2, EXCEPTION 3, EXCEPTION 4, EXCEPTION 5, EXCEPTION 6, AND 5-1.1 OF THE FL/CL CODE ARE DELETED AS FOLLOWS:
5-1 DESIGN AND CONSTRUCTION OF LIQUID-FUELED TANKS. FUEL TANKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE TANK SPECIFICATIONS IN PART 2 OF THESE RULES.
EXCEPTION NO. 1. DELETED.
EXCEPTION NO. 2. DELETED.
EXCEPTION NO. 3. DELETED.
EXCEPTION NO. 4. DELETED.
EXCEPTION NO. 5. DELETED.
EXCEPTION NO. 6. DELETED.
5-1.1. DELETED.

R 29.5510 INSTALLATION CRITERIA FOR FUEL TANKS CONTAINING CLASS I FUELS.
RULE 510. SECTION 5-2.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:
5-2.3 OTHER REQUIREMENTS FOR FUEL TANKS SUCH AS CONSTRUCTION, THE MINIMUM DISTANCE FROM ANY LINE OF ADJOINING PROPERTY THAT MIGHT BE BUILT UPON, SPACING, DIKES, FOUNDATIONS, SUPPORTS, DEPTH AND COVER, ANCHORAGE, NORMAL AND EMERGENCY VENTS, CORROSION PROTECTION, SPILL CONTROL, EXISTING ABOVEGROUND TANKS, AND TESTING SHALL BE ACCORDANCE WITH THE APPLICABLE PROVISIONS OF PART 2 OF THESE RULES.

R 29.5511 INSTALLATION CRITERIA FOR FUEL TANKS CONTAINING LIQUID FUELS OTHER THAN CLASS I FUELS.

RULE 511. SECTIONS 5-3.1 AND 5-3.3.1 OF THE FL/CL CODE ARE ADOPTED WITH THE FOLLOWING CHANGES AND SECTION 5-3.1.1 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

5-3.1 GENERAL. ENGINE-MOUNTED TANKS SHALL BE SECURELY MOUNTED ON THE ENGINE ASSEMBLY AND PROTECTED AGAINST VIBRATION, PHYSICAL DAMAGE, ENGINE HEAT, AND THE HEAT OF EXHAUST PIPING. NOT MORE THAN 1 ENGINE-MOUNTED TANK SHALL BE INSTALLED ON EACH ENGINE.

5-3.1.1 A GENERATOR BASE TANK SHALL BE DESIGNED TO SUPPORT THE WEIGHT OF THE GENERATOR UNIT PLACED ON TOP OF THE TANK. THE TANK AND SECONDARY CONTAINMENT SHALL BE BUILT TO A NATIONALLY RECOGNIZED STANDARD OF DESIGN SUCH AS AN UNDERWRITERS LABORATORIES STANDARD.

5-3.3.1 FUEL TANKS LOCATED OUTSIDE, EITHER ABOVEGROUND OR UNDERGROUND, OR BENEATH A STRUCTURE SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF PART 2 OF THESE RULES, INCLUDING SECTIONS 2.3.2.3 AND 2.3.2.7.

R 29.5512 INSTALLATION CRITERIA FOR FUEL TANKS CONTAINING LIQUEFIED PETROLEUM GASES.

RULE 512. SECTION 5-4.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5-4.1 LP-GAS SYSTEMS IN THE LIQUID PHASE SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF R 29.4001 ET SEQ.

R 29.5513 FILLING.

RULE 513. SECTION 5-6.3 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5-6.3 PIPING FOR FUEL TANKS SHALL BE IN ACCORDANCE WITH PART 2 OF THESE RULES.

R 29.5514 VENT PIPING.

RULE 514. SECTION 5-7 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES:

5-7 PIPING FOR FUEL TANKS SHALL BE IN ACCORDANCE WITH PART 2 OF THESE RULES.

R 29.5515 FUEL PIPING, VALVES, AND FITTINGS.

RULE 515. SECTION 5-8.1 OF THE FL/CL CODE IS ADOPTED WITH THE FOLLOWING CHANGES AND SECTIONS 5-8.5, 5-8.6, AND 5-8.7 ARE ADDED TO THE FL/CL CODE AS FOLLOWS:

5-8.1 PIPING SHALL BE ACCORDANCE WITH CHAPTER 3 OF PART 2 OF THE FL/CL CODE, EXCEPT THAT PIPING SHALL BE STEEL OR OTHER METAL AND THE PROVISIONS OF SECTION 5-8.2 SHALL APPLY.

5-8.5 TANK VEHICLE AND TANK CAR LOADING AND UNLOADING FACILITIES SHALL BE SEPARATE FROM ABOVEGROUND TANKS, WAREHOUSES, OTHER PLANT BUILDINGS, OR THE NEAREST LINE OF ADJOINING PROPERTY THAT CAN BE BUILT UPON BY A DISTANCE OF NOT LESS THAN 25 FEET (7.6 METERS) FOR CLASS I LIQUIDS AND NOT LESS THAN 15 FEET (4.6 METERS) FOR CLASS II AND CLASS III LIQUIDS, MEASURED FROM THE NEAREST FILL SPOUT OR TRANSFER CONNECTION. THESE DISTANCES SHALL BE ACHIEVED BY THE

USE OF FIXED PIPING BETWEEN THE TANK AND THE TRANSFER CONNECTION. THESE DISTANCES SHALL BE PERMITTED TO BE REDUCED BY UTILIZING AN AUTOMATIC FIXED FIRE PROTECTION SYSTEM OR FIRE-RATED BARRIER RATED FOR 2 OR MORE HOURS. BUILDINGS FOR PUMPS OR SHELTERS FOR PERSONNEL SHALL BE PERMITTED TO BE A PART OF THE FACILITY.

EXCEPTION 1: A FIRE PROTECTED TANK OR A TANK IN A VAULT DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR THE LOADING AND UNLOADING RISERS.

EXCEPTION 2: A TANK WHICH HAS A CAPACITY OF 3,000 GALLONS (11,340 LITERS) OR LESS, WHICH IS LOCATED 10 FEET (3.1 METERS) FROM ANY BUILDING, AND WHICH IS PROVIDED WITH SPILL AND AUDIBLE OVERFILL PROTECTION OR OTHER MEANS ACCEPTABLE TO THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, AND WELFARE AND THE ENVIRONMENT DOES NOT HAVE TO BE IN COMPLIANCE WITH THE SEPARATION DISTANCE REQUIREMENTS FOR LOADING AND UNLOADING RISERS.

5-8.6 PROVISIONS SHALL BE MADE TO PREVENT LIQUIDS THAT CAN BE SPILLED AT A LOADING OR UNLOADING FACILITY FROM ENTERING A PUBLIC SEWER, GROUNDWATER, SURFACE WATER, SUBSURFACE SOILS, OR THE IMPOUNDMENT AREA FOR THE TANKS, OTHER THAN REMOTE IMPOUNDING. IF ADEQUATE SPILL PROTECTION IS NOT PROVIDED AT THE LOADING AND UNLOADING AREAS, THEN A SPILL PAD SHALL BE PROVIDED WITH A FIXED SOURCE OF SPILL CONTAINMENT AT THE STATIONARY DRY-BREAK CONNECTION. A CONNECTION TO A PUBLIC SEWER, DRAIN, OR SURFACE WATER SHALL BE PROVIDED WITH A TRAP OR SEPARATOR. THE TRAPS, SEPARATORS, HOLDING TANKS, OR OTHER APPROVED MEANS SHALL BE PROPERLY DESIGNED AND MAINTAINED ACCORDING TO THE MANUFACTURERS OPERATING INSTRUCTIONS BY THE OWNER OR OPERATOR AND SHALL BE EMPTIED OF ACCUMULATED PRODUCT, FOR WHICH IT IS INTENDED, BEFORE REACHING SAFE STORAGE CAPACITY. EXISTING LOCATIONS SHALL BE EQUIPPED WITH SUCH PROVISIONS WITHIN 5 YEARS OF THE EFFECTIVE DATE OF THESE RULES.

5-8.7 A LOADING OR UNLOADING FACILITY THAT HAS A CANOPY, ROOF, OR OTHERWISE SHELTERED FROM THE WEATHER SHALL BE CONSTRUCTED OF NONCOMBUSTIBLE MATERIALS AND HAVE PRIOR APPROVAL BY THE DEPARTMENT BASED ON THE BEST INTERESTS OF PUBLIC HEALTH, SAFETY, WELFARE, AND THE ENVIRONMENT. THE CANOPY OR ROOF SHALL NOT LIMIT THE DISSIPATION OF HEAT OR DISPERSION OF FLAMMABLE VAPORS AND CANNOT RESTRICT FIREFIGHTING ACCESS AND CONTROL.

R 29.5516 PERMANENT CLOSURE OF STORAGE TANKS.

RULE 516. SECTION 5-10 IS ADDED TO THE FL/CL CODE AS FOLLOWS:

5-10 TANKS NOT USED TO STORE LIQUIDS FOR 12 MONTHS SHALL BE PERMANENTLY CLOSED BY COMPLYING WITH THE REQUIREMENTS OF SECTIONS 2.6.4 AND 2.6.5 OF PART 2 OF THESE RULES.

APPENDIX A

FORMS LIST

EQP3858—CHANGE OF INFORMATION FORM ABOVEGROUND TANKS ONLY (REV 04/2002)

EQP3893—ABOVEGROUND STORAGE TANK SYSTEM INSPECTION NOTIFICATION FORM (05/2002)

EQP3896—INTERNAL TANK INSPECTION SUMMARY (05/2002) MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION,
PO BOX 30157, LANSING, MI 48909-7657, Phone 517-373-8168, Fax 517-335-2245, E-mail DEQ-STD-TANKS@michigan.gov

This information is required under Act 207 of the Public Acts of 1941, as amended. Any owner who knowingly fails to notify or submits false information shall be subject to a misdemeanor and/or civil penalties not to exceed $5000 per day for each tank for which notification is not given or for which false information is submitted.

OWNER NAME		LOCATION NAME OR SITE IDENTIFIER		**FACILITY NUMBER**
OWNER ADDRESS		FACILITY STREET ADDRESS (PO BOX NOT ACCEPTABLE)		AREA CODE & TELEPHONE NUMBER
CITY		CITY		ZIP CODE
STATE	ZIP	STATE	ZIP	
AREA CODE & TELEPHONE NUMBER		CONTACT PERSON (AT LOCATION)		

TYPE OF FACILITY	TYPE OF REPORT
	☐ New Owner
☐ Flammable or Combustible Liquids Storage	☐ Closure of Facility (All Storage)
☐ Liquefied Petroleum Gas Storage	☐ Closure of Tanks
☐ Compressed Natural Gas	☐ Tank(s) Returned to Service

TANKS OUT OF USE OR CHANGE IN SERVICE

TANK IDENTIFICATION NUMBER	TANK #	TANK #	TANK #	TANK #	TANK #

CAPACITY OF TANK					
PRODUCT STORED					
DATE TANK WAS:	INSERT DATE IN ALL BOXES THAT APPLY				
A: REMOVED FROM PREMISES					
B: EMPTIED AND CLEANED					
C: PIPE DISCONNECTED					
D: CHANGED TO NON REGULATED SUBSTANCE					
E: RETURNED TO REGULATED STORAGE					

CERTIFICATION

(Read and Sign After Completing ALL Sections)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE, AND COMPLETE.		
Name and Official Title of Owner or Owner's Authorized Representative (Print)	Signature	Date:
COMMENTS AND/OR CLARIFICATION TO THE STORAGE TANK DIVISION STAFF:		

MAIL TO: STORAGE TANK DIVISION
DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30157
LANSING MI 48909-7657

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - STORAGE TANK DIVISION

ABOVEGROUND STORAGE TANK SYSTEM INSPECTION NOTIFICATION FORM

This information is required under Act 207, PA of 1941. Any owner who knowingly submits false information shall be subject to misdemeanor and/or civil penalties.

SECTION I: FACILITY INFORMATION

FACILITY NAME			FACILITY ID NUMBER
FACILITY STREET ADDRESS (PO BOX NOT ACCEPTABLE)			CONTACT PERSON
CITY	STATE	ZIP CODE	TELEPHONE NUMBER

SECTION II: INSPECTION COMPANY INFORMATION

NAME OF FIRM PERFORMING INSPECTION		**TELEPHONE NUMBER**
INSPECTION COMPANY ADDRESS		CONTACT PERSON
CITY	STATE	ZIP CODE

TYPE OF INSPECTION	TYPE OF TANK
☐ API STANDARD 653 INTERNAL INSPECTION	☐ API 650
☐ STI SP001-00 INTERNAL INSPECTION	☐ UL (UNDERWRITERS LABORATORIES LABELED)
☐ AST TANK LINER INSPECTION	☐ ASME (PRESSURE VESSEL)
	☐ OTHER

SECTION III: TANK INSPECTION INFORMATION

TANK IDENTIFICATION NUMBER					
CAPACITY OF TANK					
PRODUCT STORED					
INSPECTION START DATE					
INSPECTION COMPLETION DATE					

CERTIFICATION
(Read and Sign After Completing ALL Sections)

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS AND ALL ATTACHED DOCUMENTS, AND THAT BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THE SUBMITTED INFORMATION IS TRUE, ACCURATE AND COMPLETE.		
Name and Official Title of Owner or Owner's Authorized Representative (Print)	Signature	Date:
COMMENTS AND/OR CLARIFICATION FOR THE STORAGE TANK DIVISION STAFF:		

MAIL TO: STORAGE TANK DIVISION

DEPARTMENT OF ENVIRONMENTAL QUALITY
PO BOX 30157
LANSING MI 48909-7657

If you have questions regarding this, please contact the Storage Tank Division, Monday through Friday, between 8:00 a.m. and 5:00 p.m.
Phone: 517-373-8168
e-mail: DEQ-STD-TANKS@michigan.gov
Fax: 517-335-2245 or 517-335-0146

Web Site: www.michigan.gov/deq

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY, STORAGE TANK DIVISION,
PO BOX 30157, LANSING, MI 48909-7657, Phone 517-373-8168, Fax 517-335-2245, E-mail DEQ-STD-TANKS@michigan.gov

INTERNAL TANK INSPECTION SUMMARY

INSTRUCTIONS: This form is to be used for recording the summary information based on an internal tank inspection pursuant to API Standard 653, 3rd edition and STI SP001-00, 1st edition. This is required under Part 2 of the Storage and Handling of Flammable and Combustible Liquids (FL/CL) Rules. Fill in ALL applicable data. A copy of this completed form shall be submitted to the Storage Tank Division within 60 days of completion of the inspection.

OWNER INFORMATION			**PROJECT INFORMATION**			**INSPECTOR INFORMATION**		
Name			Facility Name		Facility ID	Inspector Name		API Cert. # or STI Cert. #
Company Name			Site Address			Company Name		
Street Address			CITY	STATE MI	ZIP	Street Address		
CITY	STATE	ZIP	County			CITY	STATE	ZIP
Telephone Number ( )			Tank Number		Construction Date	Telephone Number ( )		
Fax Number ( )						Fax Number ( )		

GENERAL INSPECTION INFORMATION:

Inspection Date: _____ Type: ☐ External ☐ Ultrasonic ☐ Internal Purpose: ☐ Scheduled ☐ Unscheduled ☐ Other (specify): _____

Prior Inspection Date: _____ Type: ☐ External ☐ Ultrasonic ☐ Internal

TANK SPECIFICATIONS:

Manufacturer:		Contents:		Specific Gravity:	
Dimensions:		Capacity:		Fill Height:	
Product heated:	☐ Yes ☐ No	Maximum Operating Temperature(F):			

TANK CONSTRUCTION:

1. ☐ Bare Steel 2. ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) **Date Installed:** _____
3. ☐ Coated Steel 4. ☐ Double Bottom 5. ☐ Double Wall 6. ☐ Lined 7. ☐ Other (specify):

Bottom: ☐ Welded ☐ Riveted Original Thickness:_____ | ☐ Leak Detection Date Installed:

Shell: ☐ Welded ☐ Riveted No. of courses: _____ | Orig. Course Thickness.: 1. _____2. _____3. _____ 4. _____5. _____6. _____7. _____8. _____

Foundation: ☐ Grade ☐ Concrete Pad ☐ Concrete Ringwall ☐ Stone Ringwall ☐ Other

Bottom Release Prevention/Detection: 1. ☐ Impermeable Dike Liner (Description) _____
2. ☐ Cathodic Protection (Date of last survey & results): _____
3. ☐ Internal Lining (Date installed & type): _____
4. ☐ Groundwater monitoring 5. ☐ Vapor monitoring 6. ☐ Interstitial monitoring

Roof: 1. ☐ Open 2. ☐ Fixed: ☐ Cone ☐ Dome ☐ Umbrella ☐ Other: _____
3. ☐ Floating: ☐ Internal ☐ External ☐ None

TANK INSPECTION:

Non-Destructive Test Method: (Check where test applied)	**Bottom**		**Shell**		**Roof**	
	Weld	Plate	Weld	Plate	Weld	Plate
Visual	☐	☐	☐	☐	☐	☐
Ultrasonic (Spot)	☐	☐	☐	☐	☐	☐
Ultrasonic (Scan)	☐	☐	☐	☐	☐	☐
Liquid Penetrant	☐	☐	☐	☐	☐	☐
Penetrating Oil	☐	☐	☐	☐	☐	☐
Magnetic Particle	☐	☐	☐	☐	☐	☐
Radiography	☐	☐	☐	☐	☐	☐
Mag Flux Scan	☐	☐	☐	☐	☐	☐
Vacuum Box	☐	☐	☐	☐	☐	☐
Tracer Gas	☐	☐	☐	☐	☐	☐
Holiday (Coatings)	☐	☐	☐	☐	☐	☐
Other (Describe)						

Settlement Evaluation: ☐ Yes ☐ No

INSPECTION RESULTS:

	Bottom		Shell		Roof	
	External	Internal	External	Internal	Fixed	Floating
Min. Remaining Thickness						

Min. Required Thickness						
Max. Corrosion Rate						

Release? Bottom: ☐ Yes ☐ No Shell: ☐ Yes ☐ No

Settlement Within Tolerance? Bottom (max.): ☐ Yes ☐ No Differential: ☐ Yes ☐ No Edge: ☐ Yes ☐ No Bulges/Ridges: ☐ Yes ☐ No

Comments:

REPAIR SUMMARY: (Include description, date completed, and date of post-repair inspection)

Foundation:

Bottom:

Shell:

Roof:

Appurtenances:

Hydrostatic test required?: ☐ **Yes** ☐ **No** **Test date:** _____

Results:

INSPECTION SCHEDULE: (Supporting calculations shall be available for review upon request)

External (ultrasonic): Corrosion rate known?: ☐ Yes ☐ No

(Year) #1:_____ #2: _____ #3: _____ #4: _____ #5: _____

External (visual): (Year) #1:_____ #2: _____ #3: _____ #4: _____ #5: _____

Internal: (Year) _____

CERTIFICATION		
I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS FORM AND ALL ATTACHED DOCUMENTS AND THAT I HAVE VERIFIED THAT THE INFORMATION IS TRUE, ACCURATE, AND COMPLETE.		
API 653 INSPECTOR or STI INSPECTOR	SIGNATURE	DATE

If you have questions regarding this form, please contact the Storage Tank Division, Monday through Friday, between 8:00 a.m. and 5:00 p.m.

Phone: 517-373-8168 Fax: 517-335-2245 or 517-335-0146 e-mail: DEQ-STD-TANKS@michigan.gov Web Site: www.michigan.gov/deq

NOTICE OF PUBLIC HEARING

ORR # 2001-019

DEPARTMENT OF ENVIRONMENTAL QUALITY

STORAGE TANK DIVISION

The Michigan Department of Environmental Quality (DEQ), Storage Tank Division, will conduct a public hearing on proposed administrative rules promulgated pursuant to Section 29.3c of the Michigan Fire Prevention Code, 1941 PA 207, as amended, R 29.5101 et seq. These rules will update the current rules to standard industry practices concerning the storage and handling of flammable and combustible liquids, and changes the reference from the Michigan State Police Fire Marshal Division to the DEQ.

The public hearing will be held on September 16, 2002, at 10:00 a.m., in the ConCon A/B Conference Room, Atrium Floor, South Tower, Constitution Hall, 525 West Allegan Street, Lansing, Michigan.

Copies of the proposed rules, ORR 2001-019EQ, can be downloaded from the Internet at http://www.michigan.gov/deq. These rules can also be downloaded from the Internet through the Office of Regulatory Reform at http://www.michigan.gov/orr. Copies of the rules may also be obtained by contacting the Lansing office at:

Storage Tank Division
Michigan Department of Environmental Quality
P.O. Box 30157
Lansing, Michigan 48909-7657
Phone: 517-373-8168
Fax: 517-335-2245

All interested persons are invited to attend and present their views. It is requested that all statements be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the address above. Written comments must be received by September 30, 2002.

Persons needing accommodations for effective participation in the meeting should contact the Storage Tank Division at 517-373-8168 one week in advance to request mobility, visual, hearing, or other assistance.

This notice of public hearing is given in accordance with Sections 41 and 42 of Michigan's Administrative Procedures Act, 1969 PA 306, as amended, being Sections 24.241 and 24.242 of the Michigan Compiled Laws. Administration of the rules is by authority conferred on the Director of the DEQ by the Michigan Fire Prevention Code, 1941 PA 207, as amended, and by Executive Order Nos. 1998-2, 1997-2, 1995-18, and 1994-7. These rules will become effective seven days after filing with the Secretary of State.

_____

Roger Przybysz, Chief
Storage Tank Division

PROPOSED ADMINISTRATIVE RULES

ORR # 2001-082

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OPTOMETRY - GENERAL RULES

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

(By authority conferred on the director of the department of consumer and industry services by section 16145 of 1978 PA 368 and Executive Reorganization Order No. 1996-2, MCL 333.16145 and 445.2001)

R 338.251, R 338.252, R 338.253, R 338.254, and R 338.255 of the Michigan Administrative Code are amended as follows:

R 338.251 Definitions.
Rule 1. As used in these rules and in the interpretation and administration of sections 17401, 17412, 17432, 17433, 17435, and 17749 of the code:
(a) "Adverse drug reaction" means an adverse physical or psychological reaction which is experienced by a person resulting from diagnostic pharmaceutical agents administered by an optometrist and which occurs within 24 hours after the drug is administered. An adverse drug reaction may be indicated by symptoms that include any of the following:
(i) Red eye.
(ii) Painful eye.
(iii) Decrease in vision.
(iv) Pale or red swelling of the periocular or periobital tissues.
(v) Nausea.
(vi) Vomiting.
(vii) Fainting.
(viii) Mental confusion.
(ix) Cessation of respiration.
(b) "Board" means the board of optometry.
(c) "Code" means ~~Act No. 368 of the Public Acts of 1978, as amended, being~~ § 1978 PA 368, MCL 333.1101 et seq. ~~of the Michigan Compiled Laws.~~
(d) "Classroom hour," for the purpose of determining whether a course of study meets the requirements of section 17412(2)(a) or 17435(2)(b) of the code, means a 50- to 60-minute period of lecture, group discussion, or laboratory directly associated with a course in pharmacology. Time spent working in a clinic other than as part of a laboratory directly associated with a course in pharmacology does not qualify as a "classroom hour."
(e) "Course of study in general and clinical pharmacology" means a course of study which is completed in a

board-approved school or college, in general and clinical pharmacology as it relates to optometry, with the characteristics described in section 17412(2)(a) of the code. Not less than 30 of the 60 classroom hours of the course of study shall be allocated to ocular pharmacology and shall emphasize the systemic effects of, and reactions to, topical ocular diagnostic pharmaceutical agents, including the emergency management and referral of any adverse reactions that may occur.

(f) "Course of study relating to the didactic and clinical use of therapeutic pharmaceutical agents" means a course of study which is comprised of a minimum of 10 quarter hours or 7 semester hours of credit or 100 classroom hours of study, which is completed in a board-approved school or college, and which is in subjects relating to the didactic and clinical use of therapeutic pharmaceutical agents related to optometry.

(g) "Department" means the Michigan department of CONSUMER AND INDUSTRY SERVICES ~~commerce~~.

(h) "Emergency treatment plan for management and referral of patients who experience an adverse drug reaction" means a plan which is submitted to the board on a board-approved form and in which the optometrist agrees to do all of the following:

(i) Refer patients who notify the optometrist of an adverse drug reaction to an appropriate medical specialist or facility.

(ii) Routinely advise patients to immediately contact the optometrist if the patient experiences an adverse drug reaction.

(iii) Place in the patient's permanent record information describing any adverse drug reaction experienced by the patient and the date and time that any patient referral was made.

R 338.252 Licensure by examination.

Rule 2. (1) An applicant for a Michigan optometry license by examination shall submit a completed application on forms provided by the department, together with the requisite fee. In addition to meeting the requirements of the code and the administrative rules promulgated pursuant thereto, an applicant shall satisfy the requirements of this rule.

(2) An applicant shall have graduated from a college of optometry or school of optometry approved by the board.

(3) An applicant shall have achieved a MINIMUM SCALED score of ~~not less than~~ 75 on each part of the Michigan board of optometry ~~clinical~~ examination.

(4) An applicant shall have achieved a MINIMUM SCALED score of ~~not less than~~ 75 on ALL PARTS ~~part I, a score of not less than 75 on part IIA, and a score of not less than 75 on part IIB~~ of the examination GIVEN ~~developed and scored~~ by the national board of examiners in optometry, OR ITS SUCCESSOR ORGANIZATION OR THE TESTING AGENCY CURRENTLY RECOGNIZED OR ENDORSED BY THE ASSOCIATION OF REGULATORY BOARDS OF OPTOMETRY OR ITS SUCCESSOR ORGANIZATION. ~~or achieved a score of not less than 75 on the basic science examination and a score of not less than 75 on the clinical science examination developed and scored by the national board of examiners in optometry.~~

R 338.253 Licensure by endorsement.

Rule 3. (1) An applicant for a Michigan optometry license by endorsement shall submit a completed application on forms provided by the department, together with the requisite fee. In addition to meeting the requirements of the code and the administrative rules promulgated pursuant thereto, an applicant shall have graduated from a school or college of optometry approved by the board and satisfy the requirements of this rule.

(2) If an applicant was first licensed in another state ~~before June 1, 1985,~~ and ~~has~~ HAD engaged in the practice of optometry FOR a minimum of 5 years before the date of filing an application for a Michigan optometrist license, it will be presumed that the applicant meets the requirements of section 16186(l)(a) and ~~(d)~~ (B) of the code. IN ADDITION, AN APPLICANT SHALL HAVE ACHIEVED A MINIMUM SCALED SCORE OF 75 ON THE EXAMINATION OF MICHIGAN LAWS AND RULES RELATED TO THE PRACTICE OF OPTOMETRY THAT IS ADMINISTERED BY THE DEPARTMENT.

(3) If an applicant does not meet the requirements of subrule (2) of this rule, the applicant shall satisfy the following requirements as applicable:

~~(a) An applicant who was first licensed in another state on or after June 1, 1985, shall have either achieved a score of not less than 75 on part I, a score of not less than 75 on part IIA, and a score of not less than 75 on part IIB of the examination developed and scored by the national board of examiners in optometry or achieved a score of not less than 75 on the basic science examination and a score of not less than 75 on the clinical science examination developed and scored by the national board of examiners in optometry.~~

(A) AN APPLICANT WHO WAS FIRST LICENSED IN ANOTHER STATE SHALL HAVE ACHIEVED A MINIMUM SCALED SCORE OF 75 ON ALL PARTS OF THE EXAMINATION GIVEN BY THE NATIONAL BOARD OF EXAMINERS IN OPTOMETRY OR ITS SUCCESSOR ORGANIZATION, OR THE TESTING AGENCY CURRENTLY RECOGNIZED OR ENDORSED BY THE ASSOCIATION OF REGULATORY BOARDS OF OPTOMETRY OR ITS SUCCESSOR ORGANIZATION.

(b) An applicant who has not been licensed in another state for a minimum of 5 years and engaged in the practice of optometry for a minimum of 5 years before the date of filing an application for a Michigan optometrist license shall achieve a MINIMUM SCALED score of ~~not less than~~ 75 on each part of the Michigan board of optometry ~~clinical~~ examination.

R 338.254 School or college approval standards.

Rule 4. (1) The board approves and ~~incorporates~~ ADOPTS by reference ~~herein~~ IN THESE RULES the standards of the council on optometric education of July, 1976, which govern school or college of optometry accreditation.

(2) A school or college of optometry accredited by the council on optometric education may be approved by the board.

(3) A school or college of optometry that is not accredited by the council on optometry education may be approved by the board if it meets the standards in subrule (1) of this rule.

(4) Copies of the standards of the ~~council on optometric education~~ ACCREDITATION COUNCIL ON OPTOMETRIC EDUCATION ARE AVAILABLE FREE OF CHARGE FROM THE AMERICAN OPTOMETRIC ASSOCIATION, 243 N. LINDBERGH BLVD., ST. LOUIS, MO 63141 OR FROM THE ASSOCIATION'S WEBSITE AT HTTP://WWW.AOANET.ORG. PRINTED COPIES ALSO ARE AVAILABLE FOR INSPECTION AND DISTRIBUTION ~~are available~~ from the Department of CONSUMER AND INDUSTRY SERVICES, OTTAWA BUILDING, 611 W. OTTAWA, P.O. BOX 30670 ~~Licensing and Regulation, 905 Southland Avenue,~~ Lansing, MI 48909, for A COST OF $6.00 AS OF THE TIME OF ADOPTION OF THESE RULES.~~, or from the Council of Optometric Education, 243 North Lindburgh Blvd., Saint St. Louis, Missouri 63141, at no charge.~~

R 338.255 Michigan board of optometry ~~clinical~~ examination; eligibility.

Rule 5. (1) To ~~assure eligibility~~ BE ELIGIBLE TO SIT for the Michigan board of optometry ~~clinical~~ examination, an applicant shall file a completed application ON A FORM PROVIDED BY THE

DEPARTMENT, TOGETHER WITH THE REQUISITE FEE, AND SHALL SUBMIT EVIDENCE OF HAVING COMPLETED A PROGRAM IN OPTOMETRY FROM A DEAN OF A SCHOOL OR COLLEGE OF OPTOMETRY APPROVED BY THE BOARD not less than 30 days before the date of the examination~~, To be eligible to sit for the examination, an applicant shall have graduated from a school or college of optometry approved by the board~~ and SHALL establish ~~1 of the~~ ~~following:~~ THAT HE OR SHE HAS ACHIEVED A MINIMUM SCALED SCORE OF 75 ON ALL PARTS OF THE EXAMINATION GIVEN BY THE NATIONAL BOARD OF EXAMINERS IN OPTOMETRY OR ITS SUCCESSOR ORGANIZATION, OR THE TESTING AGENCY CURRENTLY RECOGNIZED OR ENDORSED BY THE ASSOCIATION OF REGULATORY BOARDS OF OPTOMETRY OR ITS SUCCESSOR ORGANIZATION. FINAL TRANSCRIPTS SHALL BE SUBMITTED TO THE DEPARTMENT BEFORE A LICENSE IS ISSUED.

~~(a) That he or she has achieved a score of not less than 75 on part I, a score of not less than 75 on part IIA, and a score of not less than 75 on part IIB of the examination developed and scored by the national board of examiners in optometry.~~

~~(b) That he or she has achieved a score of not less than 75 on the basic science examination and a score of not less than 75 on the clinical science examination developed and scored by the national board of examiners in optometry.~~

~~(c) That he or she was first licensed in another state before June 1, 1985.~~

(2) An applicant who fails to achieve a MINIMUM SCALED score of ~~not less~~ ~~than~~ 75 on each part of the Michigan board of optometry ~~clinical~~ examination within 2 attempts shall be required to retake and achieve a MINIMUM SCALED score of ~~not less than~~ 75 on all parts of the examination in each subsequent sitting.

NOTICE OF PUBLIC HEARING

ORR # 2001-082

DEPARTMENT OF CONSUMER AND INDUSTRY SERVICES

DIRECTOR'S OFFICE

OPTOMETRY - GENERAL RULES

The Department of Consumer & Industry Services will hold a public hearing on Wednesday, September 11, 2002 from 9:00 a.m. to 11:00 a.m. at the Department of Consumer & Industry Services, Ottawa Building, 611 West Ottawa, Conference Room 1, Upper Level, Lansing, Michigan.

The public hearing is being held to receive comments from interested persons on amendments to the Michigan Optometry Administrative Rules. The current rules are being amended to delete references to Part I, Part IIA, and Part IIB of the examination of the National Board of Examiners in Optometry. The proposed rules would clarify that among the requirements that applicants for a Michigan Optometry license by examination or, in certain cases, by endorsement must meet would be to achieve a specified score on Part I, Part II, and Part III of the National Board's examination.

Hearing comments may be presented in person, with written comments available at the time of presentation. Written comments will be accepted at the following address or E-mail address until Friday, October 11, 2002 at 5:00 p.m. Address communications to:

Department of Consumer & Industry Services
Bureau of Health Services – Optometry Hearing
P.O. Box 30670
Lansing, MI 48909-8170
Attention: Diane R. Lewis, Policy Manager
E-mail address: drlewis@michigan.gov

All hearings are conducted in compliance with the 1990 Americans With Disabilities Act. Hearings are held in buildings that accommodate mobility-impaired individuals and accessible parking is available. A disabled individual who requires accommodations for effective participation in a hearing should call Flo Beasley (517) 335-4013 (voice) or (517) 373-7489 (TTY) to make the necessary arrangements. To ensure availability of the accommodation, please call at least 1 week in advance.

PROPOSED ADMINISTRATIVE RULES

ORR # 2002-019

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019, and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.10102, R 325.10103, R 325.10104, R 325.10105, R 325.10106, R 325.10108, and R 325.10109 of the Michigan Administrative Code are amended as follows:

PART 1. GENERAL PROVISIONS

R 325.10102 Definitions; A, B.
Rule 102. As used in these rules:
(a) "Act" means ~~Act No. 399 of the Public Acts of 1976, being §~~ 1976 PA 399, MCL 325.1001 et seq. ~~of the Michigan Compiled Laws, and~~ known as the safe drinking water act.
(b) "Action level" means the concentration of lead or copper in water as specified in R 325.10604f(1)(c) that determines, in some cases, the treatment requirements that a water system is required to complete.
(c) "Advisory board" means the advisory board of examiners appointed by the director ~~pursuant to the provisions of~~ UNDER section 9(2) of the act.
(d) "Alteration" means the modification of, or addition to, an existing waterworks system, or portion of the system, that affects any of the following:
(i) Flow.
(ii) Capacity.
(iii) System service area.
(iv) Source.
(v) Treatment.
(vi) Reliability.
(e) "Approved analytical technique" means a calculation, determination, or other laboratory examination or procedure that has been approved by the United States environmental protection agency pursuant to ~~the provisions of~~ 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 ~~that~~ WHICH is saturated and which transmits water in sufficient quantities to serve as a water supply.
(h) "Artesian" means a condition of internal pressure which causes the water level in a well to rise above the aquifer used to supply water at the well location.
(i) "Back-up operator" means a certified operator designated by the public water supply to be in charge of the waterworks system or portion of the waterworks system when the operator-in-charge is not available.
(j) "Bottled drinking water" means water that is ultimately sold, provided, or offered for human consumption in a closed container.

R 325.10103 Definitions; C.
Rule 103. As used in these rules:
(a) "C" in "CT calculation" means the residual disinfectant concentration measured in milligrams per liter in a representative sample of water.
(b) "Casing" means a durable pipe that is placed in a well to prevent the soil from caving in and to seal off surface drainage or undesirable water, gases, contaminants, or other fluids and prevent them from entering the well and the aquifer supplying the well.
(c) "Casing vent" means an outlet at the upper terminal of a well casing which provides atmospheric pressure in the well and which allows the escape of gases when present.
(d) "Certificate" means a document that is issued by the department to a person who meets the qualification requirements for operating a waterworks system or a portion of the waterworks system.
(e) "Certified operator" means an operator who holds a certificate.
(f) "Community supply" or "community water supply" or "community water system" means a public water supply that provides year-round service to not fewer than 15 living units or that regularly provides year-round service to not fewer than 25 residents.
(g) "Complete treatment ~~system~~" means a ~~treatment system that employs~~ SERIES OF PROCESSES, INCLUDING disinfection~~, coagulation, sedimentation, and filtration units that function collectively to effect control over water quality characteristics~~ AND FILTRATION, TO TREAT SURFACE WATER OR GROUND WATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER, OR TO TREAT GROUND WATER NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER THAT USES PRECIPITATIVE SOFTENING, to produce a finished water ~~that meets the requirements of the~~ MEETING state drinking water standards.
(h) "Compliance cycle" means the 9-year calendar year cycle during which public water systems are required to monitor. Each compliance cycle consists of 3 3-year compliance periods. The first calendar year cycle begins January 1, 1993, and ends December 31, 2001; the second begins January 1, 2002, and ends December 31, 2010; the third begins January 1, 2011, and ends December 31, 2019.
(i) "Compliance period" means a 3-year calendar year period within a compliance cycle. Each compliance cycle has 3 3-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, to December 31, 1995; the second from January 1, 1996, to December 31, 1998; the third from January 1, 1999, to December 31, 2001.
(j)"COMPREHENSIVE PERFORMANCE EVALUATION (CPE)" MEANS A THOROUGH REVIEW AND ANALYSIS OF A TREATMENT PLANT'S PERFORMANCE-BASED CAPABILITIES AND ASSOCIATED ADMINISTRATIVE, OPERATION, AND MAINTENANCE PRACTICES. IT IS CONDUCTED TO IDENTIFY FACTORS THAT MAY BE ADVERSELY IMPACTING A PLANT'S CAPABILITY TO ACHIEVE COMPLIANCE AND EMPHASIZES APPROACHES THAT CAN BE IMPLEMENTED WITHOUT SIGNIFICANT CAPITAL IMPROVEMENTS. FOR PURPOSES OF

COMPLIANCE, THE COMPREHENSIVE PERFORMANCE EVALUATION SHALL CONSIST OF AT LEAST ALL OF THE FOLLOWING COMPONENTS:
(i) ASSESSMENT OF PLANT PERFORMANCE.
(ii) EVALUATION OF MAJOR UNIT PROCESSES.
(iii) IDENTIFICATION AND PRIORITIZATION OF PERFORMANCE LIMITING FACTORS.
(iv) ASSESSMENT OF THE APPLICABILITY OF COMPREHENSIVE TECHNICAL ASSISTANCE.
(v) PREPARATION OF A CPE REPORT.
~~(j)~~(k) "Confluent growth" means a continuous bacterial growth that covers the entire filtration area of a membrane filter, or portion of a filtration area, in which bacterial colonies are not discrete.
~~(k)~~(l) "Construction" means the erection, installation, or alteration of a waterworks system, or any portion of a waterworks system, that affects any of the following:
(i) Flow.
(ii) Capacity.
(iii) System service area.
(iv) Source.
(v) Treatment.
(vi) Reliability.
~~(l)~~(m) "Contested cases" means matters that are within the definition of a contested case as set forth by section 3(3) of 1969 PA 306, MCL 24.203(3), and matters of issue that involve any of the following which are issued by the director, the department, or the division pursuant to the act and these rules:
(i) Orders.
(ii) Exemptions.
(iii) Variances.
(iv) Stipulations.
(v) Consent agreements.
(vi) Permits.
(vii) Licenses.
(viii) Certificates.
~~(m)~~(n) "Contested case hearing" means a hearing that is initiated by the department or a person under chapters 4, 5, and 6 of 1969 PA 306, MCL 24.271 to 24.306.
~~(n)~~(o) "Contaminant" means a physical, chemical, biological, or radiological substance or matter in water.
~~(o)~~(p) "Contingency plan" means a plan for use by a supplier of water in the event of an emergency.
(q) "CONVENTIONAL FILTRATION" MEANS A SERIES OF PROCESSES, INCLUDING COAGULATION, FLOCCULATION, SEDIMENTATION, AND FILTRATION, RESULTING IN SUBSTANTIAL PARTICULATE REMOVAL.
~~(p)~~(r) "Corrosion inhibitor" means a substance that is capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.
~~(q)~~(s) "Cross connection" means a connection or arrangement of piping or appurtenances through which a backflow could occur.
~~(r)~~(t) "CT calculation" means the product of residual disinfectant concentration (C) in milligrams per liter determined at or before the first customer and the corresponding disinfectant contact time (T) in minutes; C*T is calculated at rated capacity. The total CT shall be the sum of individual CTs of each disinfectant sequence.
~~(s)~~(u) "Customer service connection" means the pipe between a water main and customer site piping or building plumbing system.

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

R 325.10104 Definitions; D, E.

Rule 104. As used in these rules:

(a) "Department" means the department of environmental quality or its authorized agent or representative.

(b) "Deviation" means an exception to a department rule establishing minimum standards or requirements issued in writing or as a condition to a permit to a supplier of water.

(c) "DIRECT FILTRATION" MEANS A SERIES OF PROCESSES, INCLUDING COAGULATION AND FILTRATION, BUT EXCLUDING SEDIMENTATION, RESULTING IN SUBSTANTIAL PARTICULATE REMOVAL.

~~(c)~~(d) "Director" means the director of environmental quality or his or her authorized agent or representative.

~~(d)~~(e) "Disinfectant contact time" (T in CT calculations) means the time in minutes that it takes for water to move from the point of disinfectant application or the previous point of disinfectant residual measurement to a point at or before the point where residual disinfectant concentration is measured. Disinfectant contact time in pipelines shall be calculated based on plug flow by dividing the internal volume of the pipe by the maximum hourly flow rate through that pipe. Disinfectant contact time within mixing basins and storage reservoirs shall be determined by tracer studies or an equivalent demonstration.

~~(e)~~(f) "Distribution system" means a system that consists of the following components through which water is distributed and used or intended for use for drinking or household purposes:

(i) Piping.

(ii) Transmission or distribution mains.

(iii) Pumps.

(iv) Pumping stations.

(v) Storage tanks.

(vi) Controls.

(vii) Associated appurtenances.

~~(f)~~(g) "Division" means the drinking water and radiological protection division of the department.

~~(g)~~(h) "Domestic or other non-distribution system plumbing problem" means a coliform contamination problem in a public water system ~~with~~ WHICH HAS more than 1 service connection that is limited to the specific service connection from which the coliform positive sample was taken.

~~(h)~~(i) "Drawdown" means the difference between the static water level and the pumping water level in a well or, for a flowing artesian well, the difference between an established datum above ground and the pumping water level.

~~(i)~~(j) "Effective corrosion inhibitor residual," for the purpose of lead and copper control, means a concentration that is sufficient to form a passivating film on the interior walls of a pipe.

~~(j)~~(k) "Emergency" means a situation in a public water supply that results in contamination, loss of pressure, lack of adequate supply of water, or other condition that poses an imminent hazard or danger to the public health.

(l) "ENHANCED COAGULATION" MEANS THE ADDITION OF SUFFICIENT COAGULANT FOR IMPROVED REMOVAL OF DISINFECTION BYPRODUCT PRECURSORS BY CONVENTIONAL FILTRATION TREATMENT.

(m) "ENHANCED SOFTENING" MEANS THE IMPROVED REMOVAL OF DISINFECTION BYPRODUCT PRECURSORS BY PRECIPITATIVE SOFTENING.

~~(k)~~(n) "EPA" means the United States environmental protection agency.
~~(l)~~(o) "Equivalent certificate" means a certificate which is issued to certain individuals. Individuals eligible for an equivalent certificate do not hold a current certificate but were issued certification before the effective date of the current rules.
~~(m)~~(p) "Established ground surface" means the intended or actual finished grade or elevation of the surface of the ground at the site of a water supply facility.
~~(n)~~(q) "Exemption" means an order, with appropriate conditions, time schedules, and compliance requirements, that is issued by the director to a supplier of water permitting a public water supply to be in temporary noncompliance with a state drinking water standard, including a specified treatment technique.

R 325.10105 Definitions; F to L.
Rule 105. As used in these rules:
(a) "Federal act" means the safe drinking water act of 1974, 42 U.S.C. S300f et seq. and the provisions of 40 C.F.R. part 35, §35.600 to §35.630; 40 C.F.R. part 141; and 40 C.F.R. part 142 promulgated by EPA (1999) 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.
~~(b)~~(c) "Finished water" means water that is ready for distribution to the customers or users of a public water supply.
~~(c)~~(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.
~~(d)~~(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) "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.
~~(e)~~(g) "Gravity storage tank" means an elevated or ground level finished water storage reservoir that, during normal use, operates under atmospheric pressure.
~~(f)~~(h) "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.
~~(g)~~(i) "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 ~~changes~~ SHIFTS in water characteristics, such as turbidity, temperature, conductivity, or pH, that closely correlate to climatological or surface water conditions.
~~(h)~~(j) "Grout" means neat cement, concrete, or other sealing material which is approved by the department and which is used to seal a well casing in a well.
(k) "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.

~~(i)~~(l) "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.
~~(j)~~(m) "Initial compliance period" means January 1993 to December 1995. For a system 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.
~~(k)~~(n) "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.
~~(l)~~(o) "Lead service line" means a service line which is made of lead and which connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting that is connected to the lead line.
~~(m)~~(p) "License" means the license that is issued by the department to a water hauler, or for a water hauling tank, pursuant to section 18 of the act.
~~(n)~~(q) "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.
~~(o)~~(r) "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.

R 325.10106 Definitions; M to O.
Rule 106. As used in these rules:
(a) "MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL)" MEANS A LEVEL OF A DISINFECTANT ADDED FOR WATER TREATMENT THAT MAY NOT BE EXCEEDED AT THE CONSUMER'S TAP WITHOUT AN UNACCEPTABLE POSSIBILITY OF ADVERSE HEALTH EFFECTS.
~~(a)~~(b) "Maximum TTHM potential" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after 7 days at a temperature of 25 degrees Centigrade or above.
~~(b)~~(c) "MCL" means the maximum permissible level of a contaminant in water that is delivered to any user of a public water supply.
~~(c)~~(d) "MDL" means method detection limit for analytical work done to determine compliance with the act.
~~(d)~~(e) "Medium-size water system" or "medium-size water supply," for the purpose of lead and copper control, means a public water supply that serves more than 3,300 persons and fewer than or equal to 50,000 persons.
(f) "MEMBRANE FILTRATION" MEANS ANY FILTRATION PROCESS USING TUBULAR OR SPIRAL WOUND ELEMENTS THAT EXHIBITS THE ABILITY TO MECHANICALLY SEPARATE WATER FROM OTHER IONS AND SOLIDS BY CREATING A PRESSURE DIFFERENTIAL AND FLOW ACROSS A MEMBRANE WITH AN ABSOLUTE PORE SIZE OF LESS THAN 1 MICRON.
~~(e)~~(g) "Monitoring requirement" means a schedule, frequency, and location for the sampling and analysis of water that is required by the provisions of part 7 of these rules to determine whether a public water supply is in compliance with the state drinking water standards.
~~(f)~~(h) "Near the first service connection" means at 1 of the 20% of all service connections in the entire system that are nearest the water supply treatment facility, as measured by water transport time within the distribution system.
~~(g)~~(i) "Noncommunity supply" or "noncommunity water supply" or "noncommunity water system" means a public water supply that is not a community supply, but that has not fewer than 15 service connections or that serves not fewer than 25 individuals on an average daily basis for not less than 60 days per year.

~~(h)~~(j) 'Nontransient noncommunity water supply" or 'hontransient noncommunity water system" or "NTNC" means a noncommunity supply that serves not fewer than 25 of the same individuals on an average daily basis ~~over~~ MORE THAN 6 months per year. This definition includes public water supplies in places of employment, schools, and day-care centers.
~~(i)~~(k) "NTU" means nephelometric turbidity unit.
~~(j)~~(l) "One hundred-year drought elevation" means the minimum projected water surface elevation that would occur at a location once in a period of 100 years.
~~(k)~~(m) "One hundred-year flood elevation" means the maximum projected water surface elevation that would occur at a location once in a period of 100 years.
~~(l)~~(n) "Operating shift" means that period of time during which operator decisions that affect public health are necessary for proper operation of the waterworks system.
~~(m)~~(o) "Operator" means an individual who operates a waterworks system or a portion of a waterworks system.
~~(n)~~(p) "Operator in charge" means a certified operator who is designated by the owner of a public water supply as the responsible individual in overall charge of a waterworks system, or portion of a waterworks system, who makes decisions regarding the daily operational activities of the system that will directly impact the quality or quantity of drinking water.
~~(o)~~(q) "Optimal corrosion control treatment," for the purpose of lead and copper control, means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the public water supply to be in violation of any national primary drinking water regulations.

R 325.10108 Definitions; S.
Rule 108. As used in these rules:
(a) "Sanitary survey" means an evaluation, including an on-site review of a waterworks system or a portion ~~thereof~~ OF THE WATERWORKS SYSTEM, INCLUDING ALL OF THE FOLLOWING APPLICABLE COMPONENTS for existing or potential health hazards~~, including sampling, design, operation, and maintenance,~~ for the purpose of determining the ability of the public water supply to produce, treat, and distribute adequate quantities of water meeting state drinking water standards~~.~~:
(i) SOURCE.
(ii) TREATMENT.
(iii) DISTRIBUTION SYSTEM.
(iv) FINISHED WATER STORAGE.
(v) PUMPS, PUMP FACILITIES, AND CONTROLS.
(vi) MONITORING, REPORTING, AND DATA VERIFICATION.
(vii) SYSTEM MANAGEMENT AND OPERATION.
(viii) OPERATOR COMPLIANCE WITH STATE REQUIREMENTS.
(b) "Service connection" means a direct connection from a distribution water main to a living unit or other site to provide water for drinking or household purposes.
(c) "Service line sample" means a 1-liter sample of water that has been standing for not less than 6 hours in a service line.
(d) "Shift operator" means a certified operator, other than the operator in charge, who is in charge of an operating shift of a waterworks system.
(e) "Single-family structure," for the purpose of lead and copper control, means a building which is constructed as a single-family residence and which is currently used as either a residence or a place of business.

(f) "Small water supply" or "small water system," for the purpose of lead and copper control, means a public water supply that serves fewer than 3,301 persons.
(g) "SOC" means synthetic organic chemical.
(h) "Source" means the point of origin of raw water or means treated water that is purchased or obtained by a public water supply, by a water hauler, or by a person who provides bottled water.
(i) "State drinking water standards" means quality standards setting limits for contaminant levels or establishing treatment techniques to meet standards necessary to protect the public health.
(j) "Static water level" means the distance measured from an established datum at or above ground level to the water surface in a well which is not being pumped, which is not under the influence of pumping, and which is not flowing under artesian pressure.
(k) "SUBPART H SYSTEMS" MEANS PUBLIC WATER SYSTEMS USING SURFACE WATER OR GROUND WATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER AS A SOURCE.
~~(k)~~(l) "Suction line" means a pipe or line that is connected to the inlet side of a pump or pumping equipment.
~~(l)~~(m) "Supplier of water" or "supplier" means a person who owns or operates a public water supply, and includes a water hauler.
~~(m)~~(n) "Surface water" means water that rests or flows on the surface of the ground.
(o) "SUVA" MEANS SPECIFIC ULTRAVIOLET ABSORPTION AT 254 NANOMETERS (NM), AN INDICATOR OF THE HUMIC CONTENT OF WATER. IT IS A CALCULATED PARAMETER OBTAINED BY DIVIDING A SAMPLE'S ULTRAVIOLET ABSORPTION AT A WAVELENGTH OF 254 NM (UV_{254}) (IN M^{-1}) BY ITS CONCENTRATION OF DISSOLVED ORGANIC CARBON (DOC) (IN MG/L). THEREFORE, SUVA UNITS ARE L/MG-M.
~~(n)~~(p) "System with a single-service connection" means a public water supply that supplies drinking water to consumers through a single-service line.

R 325.10109 Definitions; T to Y.
Rule 109. As used in these rules:
(a) "Test well" means a well that is drilled on a site that has not been approved for use as a production well in accordance with the provisions of part 8 of these rules.
(b) "Too numerous to count" means that the total number of bacterial colonies is more than 200 on a 47-millimeter diameter membrane filter.
(c) "TOTAL ORGANIC CARBON (TOC)" MEANS TOTAL ORGANIC CARBON IN MG/L MEASURED USING HEAT, OXYGEN, ULTRAVIOLET IRRADIATION, CHEMICAL OXIDANTS, OR COMBINATIONS OF THESE OXIDANTS THAT CONVERT ORGANIC CARBON TO CARBON DIOXIDE, ROUNDED TO 2 SIGNIFICANT FIGURES.
~~(c)~~(d) "Total trihalomethanes" or "TTHM" means the sum of the concentration, in milligrams per liter, rounded to 2 significant figures, of all of the following:
(i) The trihalomethane compounds.
(ii) Trichloromethane (chloroform).
(iii) Dibromochloromethane.
(iv) Bromodichloromethane.
(v) Tribromomethane (bromoform).
~~(d)~~(e) "Transient noncommunity water supply" or "transient noncommunity water system" means a noncommunity supply that does not meet the definition of nontransient noncommunity water supply in R 325.10106(h).

~~(e)~~(f) "Treatment system" means a facility or structure and associated appurtenances installed for the purpose of treating drinking water before delivery to a distribution system.
~~(f)~~(g) "Treatment technique" means a minimum treatment requirement or a necessary methodology or technology that is employed by a supplier of water for the control of the chemical, physical, biological, or radiological characteristics of the public water supply.
~~(g)~~(h) "Trihalomethane" or "THM" means 1 of the family of organic compounds named as derivatives of methane, wherein 3 of the 4 hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.
~~(h)~~(i) "Unregulated contaminants" means a group of contaminants for which state drinking water standards have not been promulgated, but for which monitoring requirements apply.
~~(i)~~(j) "Variance" means an order, with appropriate conditions and compliance schedules and requirements, which is issued by the director to a supplier of water and which permits a public water supply to be in noncompliance with a state drinking water standard, including a specified treatment technique.
~~(j)~~(k) "VOC" means volatile organic chemical.
~~(k)~~(l) "Water hauler" means a person engaged in bulk vehicular transportation of water to other than the water hauler's own household which is intended for use or used for drinking or household purposes. Excluded from this definition are those persons providing water solely for employee use.
~~(l)~~(m) "Water transportation tank" means a tank that is associated with an over-the-road vehicle that is used for the bulk transport of drinking water.
~~(m)~~(n) "Waterworks system" or "system" means a system of pipes and structures through which water is obtained and distributed, including, but not limited to ALL OF THE FOLLOWING WHICH ARE ACTUALLY USED OR INTENDED FOR USE FOR THE PURPOSE OF FURNISHING WATER FOR DRINKING OR HOUSEHOLD PURPOSES:
(i) Wells and well structures, intakes, and cribs~~,~~.
(ii) Pumping stations~~,~~.
(iii) Treatment plants~~,~~.
(iv) Storage tanks~~,~~.
(v) Pipelines and appurtenances~~, or~~.
(vi) A combination of the items specified in this subdivision~~, actually used or intended for use for the purpose of furnishing water for drinking or household purposes~~.
~~(n)~~(o) "Year-round service" means the ability of a supplier of water to provide drinking water on a continuous basis to a living unit or facility.

PROPOSED ADMINISTRATIVE RULES

ORR 2002-020

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

Filed with the Secretary of State on
This rule takes effect 7 days after filing with the Secretary of State

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019, and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.10308b of the Michigan Administrative Code is amended as follows:

PART 3. VARIANCES AND EXEMPTIONS

R 325.10308b Best available technology.
Rule 308b. (1) The department identifies the following as the best technology, treatment technique, or other means generally available for achieving compliance with the MCL:
(a) For organic contaminants that are referenced in R 325.10604b and R 325.10604d, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLS are granular activated carbon (GAC), packed tower aeration (PTA), or oxidation (OX), as listed in table ~~3.~~1 OF THIS RULE.

Table ~~3.~~1 Best available technologies for organic contaminants

CONTAMINANT	GAC	PTA	OX
Alachlor	x		
Aldicarb	x		
Aldicarb sulfone	x		
Aldicarb sulfoxide	x		
Atrazine	x		
Benzene	x	x	
Benzo(a)pyrene	x		
Carbofuran	x		
Carbon tetrachloride	x	x	
Chlordane	x		
Dalapon	x		
2,4-D	x		

CONTAMINANT	GAC	PTA	OX
Di (2-ethylhexyl)adipate	x	x	
Di (2-ethylhexyl)phthalate	x		
Dibromochloropropane (DBCP)	x	x	
o-Dichlorobenzene	x	x	
para-Dichlorobenzene	x	x	
1,2-Dichloroethane	x	x	
1,1-Dichloroethylene	x	x	
cis-1,2-Dichloroethylene	x	x	
trans-1,2-Dichloroethylene	x	x	
Dichloromethane		x	
1,2-Dichloropropane	x	x	
Dinoseb	x		
Diquat	x		
Endothall	x		
Endrin	x		
Ethylbenzene	x	x	
Ethylene Dibromide (EDB)	x	x	
Glyphosate			x
Heptachlor	x		
Heptachlor epoxide	x		
Hexachlorobenzene	x		
Hexachlorocyclopentadiene	x	x	
Lindane	x		
Methoxychlor	x		
Monochlorobenzene	x	x	
Oxamyl (Vydate)	x		
Pentachlorophenol	x		
Picloram	x		
Polychlorinated biphenyls(PCB)	x		
Simazine	x		
Styrene	x	x	
2,3,7,8-TCDD (Dioxin)	x		
Tetrachloroethylene	x	x	
Toluene	x	x	
Toxaphene	x		
2,4,5-TP (Silvex)	x		
1,2,4-Trichlorobenzene	x	x	
1,1,1-Trichloroethane	x	x	
1,1,2-Trichloroethane	x	x	
Trichloroethylene	x	x	
Vinyl chloride		x	
Xylene	x	x	

(b) For inorganic contaminants that are referenced in R 325.10604c, the best available technologies, treatment techniques, or other means available for achieving compliance with the MCLs are listed in table ~~3.~~2 OF THIS RULE.

Table ~~3.~~2 Best available technologies for inorganic contaminants

Chemical Name	Best Available Technologies
Antimony	2,7
Asbestos	2,3,8
Barium	5,6,7,9
Beryllium	1,2,5,6,7
Cadmium	2,5,6,7
Chromium	2,5,6[2],7
Cyanide	5,7,10
Mercury	2[1],4,6[1],7[1]
Nickel	5,6,7
Nitrate	5,7,9
Nitrite	5,7
Selenium	1,2[3],6,7,9
Thallium	1,5

[1] Best available technology only if influent Hg concentrations are 10 µg/l or less.
[2] Best available technology for chromium III only.
[3] Best available technology for selenium IV only.

Key to best available technologies in table:
1 = activated alumina
2 = coagulation/filtration
3 = direct and diatomite filtration
4 = granular activated carbon
5 = ion exchange
6 = lime softening
7 = reverse osmosis
8 = corrosion control
9 = electrodialysis
10 = chlorine
~~11 = ultraviolet~~

(c) FOR DISINFECTION BYPRODUCTS UNDER R 325.10610(1), THE BEST AVAILABLE TECHNOLOGIES, TREATMENT TECHNIQUES, OR OTHER MEANS AVAILABLE FOR ACHIEVING COMPLIANCE WITH THE MCLS ARE LISTED IN TABLE 3 OF THIS RULE.

TABLE 3 BEST AVAILABLE TECHNOLOGIES FOR DISINFECTION BYPRODUCTS

DISINFECTION BYPRODUCT	BEST AVAILABLE TECHNOLOGY

TTHM OR HAA5	ENHANCED COAGULATION OR ENHANCED SOFTENING OR GAC10, WITH CHLORINE AS THE PRIMARY AND RESIDUAL DISINFECTANT.
BROMATE	CONTROL OF OZONE TREATMENT PROCESS TO REDUCE PRODUCTION OF BROMATE.
CHLORITE	CONTROL OF TREATMENT PROCESSES TO REDUCE DISINFECTANT DEMAND AND CONTROL OF DISINFECTION TREATMENT PROCESSES TO REDUCE DISINFECTANT LEVELS.

(d) THE BEST AVAILABLE TECHNOLOGIES, TREATMENT TECHNIQUES, OR OTHER MEANS AVAILABLE FOR ACHIEVING COMPLIANCE WITH THE MAXIMUM RESIDUAL DISINFECTANT LEVELS UNDER R 325.10610a(1) ARE CONTROL OF TREATMENT PROCESSES TO REDUCE DISINFECTANT DEMAND AND CONTROL OF DISINFECTION TREATMENT PROCESSES TO REDUCE DISINFECTANT LEVELS.

(2) The department shall require ~~type I water systems~~ SUPPLIERS OF COMMUNITY WATER SYSTEMS and nontransient, noncommunity water ~~supplies~~ SYSTEMS to employ a treatment method identified in subrule (1) of this rule as a condition for granting a variance, except as provided in subrule (3) of this rule. If, after the treatment method is installed in the system, the system cannot meet the MCL, ~~that~~ THEN THE system shall be eligible for a variance pursuant to the provisions of this part and section 20 of the act.

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

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

PROPOSED ADMINISTRATIVE RULES

ORR # 2002-021

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019, and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.10401, R 325.10402, R 325.10403, R 325.10404, R 325.10405, R 325.10406, R 325.10407, R 325.10408, R 325.10409, R 325.10411, R 325.10412, R 325.10413, R 325.10414, R 325.10415, R 325.10416, R 325.10417, R 325.10418, R 325.10419, and R 325.10420 of the Michigan Administrative Code are amended, and R 325.10401a, R 325.10408a, and R 325.10408b are added to the Code as follows:

PART 4. PUBLIC NOTIFICATION AND PUBLIC EDUCATION

R 325.10401 Purpose.
Rule 401. The purpose of this part is to prescribe requirements of suppliers of water to provide public notification to ~~customers or users of~~PERSONS SERVED BY a public water ~~supply~~SYSTEM when the public water ~~supply~~SYSTEM is not in compliance with a state drinking water standard, a monitoring requirement, or the requirements of a compliance schedule prescribed by a variance or exemption or while a variance or exemption is in effect. This part also prescribes requirements for PUBLIC EDUCATION when a COMMUNITY OR NONTRANSIENT NONCOMMUNITY water ~~supply~~SYSTEM exceeds the lead action level based on tap water samples ~~that are~~collected ~~in accordance with the provisions of~~UNDER R 325.10710a. THIS PART ALSO PRESCRIBES REQUIREMENTS FOR CONSUMER CONFIDENCE REPORTS (CCR) AND ANNUAL WATER QUALITY REPORTS.

R 325.10401a GENERAL PUBLIC NOTIFICATION REQUIREMENTS.
RULE 401a. (1) EACH SUPPLIER OF A COMMUNITY WATER SYSTEM, NONTRANSIENT NONCOMMUNITY WATER SYSTEM, OR TRANSIENT NONCOMMUNITY WATER SYSTEM SHALL GIVE NOTICE FOR VIOLATIONS OF THE MAXIMUM CONTAMINANT LEVEL (MCL), MAXIMUM RESIDUAL DISINFECTION LEVEL (MRDL), TREATMENT TECHNIQUE (TT), MONITORING REQUIREMENTS, TESTING PROCEDURES IN THESE RULES, AND FOR OTHER SITUATIONS, AS LISTED IN THE FOLLOWING PROVISIONS:

(a) VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE, INCLUDING ALL OF THE FOLLOWING:
(i) FAILURE TO COMPLY WITH AN APPLICABLE MAXIMUM CONTAMINANT LEVEL (MCL) OR MAXIMUM RESIDUAL DISINFECTANT LEVEL (MRDL).
(ii) FAILURE TO COMPLY WITH A PRESCRIBED TREATMENT TECHNIQUE (TT).
(iii) FAILURE TO PERFORM WATER QUALITY MONITORING, AS REQUIRED BY PART 7 OF THESE RULES.
(iv) FAILURE TO COMPLY WITH TESTING PROCEDURES AS PRESCRIBED BY PART 6 OF THESE RULES.
(b) VARIANCE AND EXEMPTIONS UNDER PART 3 OF THESE RULES, INCLUDING BOTH OF THE FOLLOWING:
(i) OPERATION UNDER A VARIANCE OR AN EXEMPTION.
(ii) FAILURE TO COMPLY WITH THE REQUIREMENTS OF A SCHEDULE THAT HAS BEEN SET UNDER A VARIANCE OR EXEMPTION.
(c) SPECIAL PUBLIC NOTICES, INCLUDING ALL OF THE FOLLOWING:
(i) OCCURRENCE OF A WATERBORNE DISEASE OUTBREAK OR OTHER WATERBORNE EMERGENCY.
(ii) EXCEEDANCE OF THE NITRATE MCL BY NONCOMMUNITY WATER SYSTEMS, WHERE GRANTED PERMISSION BY THE DEPARTMENT.
(iii) FLUORIDE LEVEL ABOVE 2 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.
(2) PUBLIC NOTICE REQUIREMENTS ARE DIVIDED INTO 3 TIERS TO TAKE INTO ACCOUNT THE SERIOUSNESS OF THE VIOLATION OR SITUATION AND OF THE POTENTIAL ADVERSE HEALTH EFFECTS THAT MAY BE INVOLVED. THE PUBLIC NOTICE REQUIREMENTS FOR EACH VIOLATION OR SITUATION LISTED IN SUBRULE (1) OF THIS RULE ARE DETERMINED BY THE TIER TO WHICH THE VIOLATION OR SITUATION IS ASSIGNED. THE DEFINITION OF EACH TIER IS PROVIDED IN THE FOLLOWING PROVISIONS:
(a) TIER 1 PUBLIC NOTICE IS REQUIRED FOR VIOLATIONS AND SITUATIONS THAT HAVE SIGNIFICANT POTENTIAL TO HAVE SERIOUS ADVERSE EFFECTS ON HUMAN HEALTH AS A RESULT OF SHORT-TERM EXPOSURE.
(b) TIER 2 PUBLIC NOTICE IS REQUIRED FOR ALL OTHER VIOLATIONS AND SITUATIONS THAT HAVE POTENTIAL TO HAVE SERIOUS ADVERSE EFFECTS ON HUMAN HEALTH.
(c) TIER 3 PUBLIC NOTICE IS REQUIRED FOR ALL OTHER VIOLATIONS AND SITUATIONS NOT INCLUDED IN TIER 1 AND TIER 2.
THE TIER ASSIGNMENT FOR EACH SPECIFIC VIOLATION OR SITUATION IS IDENTIFIED IN TABLE 1 OF THIS RULE.
(3) SUPPLIERS SHALL PROVIDE PUBLIC NOTICE TO THE FOLLOWING:
(a) EACH SUPPLIER SHALL PROVIDE PUBLIC NOTICE TO PERSONS SERVED BY THE SYSTEM AS SPECIFIED IN THIS PART. SUPPLIERS THAT SELL OR OTHERWISE PROVIDE DRINKING WATER TO OTHER PUBLIC WATER SYSTEMS, SUCH AS TO CONSECUTIVE SYSTEMS, SHALL

GIVE PUBLIC NOTICE TO THE SUPPLIER OF THE CONSECUTIVE SYSTEM; THE CONSECUTIVE SYSTEM IS RESPONSIBLE FOR PROVIDING PUBLIC NOTICE TO THE PERSONS IT SERVES.

(b) IF A PUBLIC WATER SYSTEM HAS A VIOLATION IN A PORTION OF THE DISTRIBUTION SYSTEM THAT IS PHYSICALLY OR HYDRAULICALLY ISOLATED FROM OTHER PARTS OF THE DISTRIBUTION SYSTEM, THE DEPARTMENT WILL GRANT PERMISSION, WHICH SHALL BE IN WRITING, TO THE SUPPLIER TO LIMIT DISTRIBUTION OF THE PUBLIC NOTICE TO ONLY PERSONS SERVED BY THAT PORTION OF THE SYSTEM WHICH IS OUT OF COMPLIANCE. TO BE PHYSICALLY SEPARATED, THE SUPPLIER SHALL SHOW THAT THE AFFECTED PORTION OF THE DISTRIBUTION SYSTEM IS SEPARATED FROM OTHER PARTS OF THE DISTRIBUTION SYSTEM WITH NO INTERCONNECTIONS. TO BE CONSIDERED HYDRAULICALLY SEPARATED, THE SUPPLIER SHALL SHOW THAT THE DESIGN OF THE DISTRIBUTION SYSTEM OR THE SYSTEM OPERATION, OR BOTH, CREATED A SITUATION WHERE WATER IN THE AFFECTED PORTION IS EFFECTIVELY ISOLATED FROM THE WATER IN ALL OTHER PARTS OF THE DISTRIBUTION SYSTEM BECAUSE OF PROJECTED WATER FLOW PATTERNS AND WATER PRESSURE ZONES.

(4) THE SUPPLIER, WITHIN 10 DAYS OF COMPLETING THE PUBLIC NOTIFICATION REQUIREMENTS UNDER THIS PART FOR THE INITIAL PUBLIC NOTICE AND APPLICABLE REPEAT NOTICES, SHALL SUBMIT TO THE DEPARTMENT A CERTIFICATION THAT IT FULLY COMPLIED WITH THE PUBLIC NOTIFICATION REGULATIONS. THE SUPPLIER SHALL INCLUDE WITH THIS CERTIFICATION A REPRESENTATIVE COPY OF EACH TYPE OF NOTICE DISTRIBUTED, PUBLISHED, POSTED, AND MADE AVAILABLE TO THE PERSONS SERVED BY THE SYSTEM AND TO THE MEDIA.

TABLE 1 VIOLATIONS AND OTHER SITUATIONS REQUIRING PUBLIC NOTICE

CONTAMINANT	MCL/MRDL/TT VIOLATIONS [1]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
I. VIOLATIONS OF MCL, MRDL, TREATMENT TECHNIQUE, MONITORING AND REPORTING, AND TESTING PROCEDURE REQUIREMENTS:				
A. MICROBIOLOGICAL CONTAMINANTS				
TOTAL COLIFORM	2	R 325.10602(a) AND (b)	3	R 325.10705, R 325.10707, R 325.10707a, R 325.10702(2), R 325.10707b(2)
FECAL COLIFORM/E. COLI	1	R 325.10602(c)	1, 3 [2]	R 325.10707b(2)
TURBIDITY (FOR TT VIOLATIONS RESULTING FROM A SINGLE EXCEEDANCE OF MAXIMUM ALLOWABLE TURBIDITY LEVEL)	2, 1 [3]	R 325.10611b	3	R 325.10605, R 325.10720(2)(a) AND (c)

CONTAMINANT	MCL/MRDL/TT VIOLATIONS [1]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
VIOLATIONS, OTHER THAN VIOLATIONS RESULTING FROM SINGLE EXCEEDANCE OF MAX. ALLOWABLE TURBIDITY LEVEL (TT)	2	R 325.10611 R 325.10611b	3	R 325.10605 R 325.10720(2)(d) AND (e)
B. INORGANIC CHEMICALS (IOCS)				
ANTIMONY	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
ARSENIC	2	R 325.10604c(1)	3	R 325.10710(4)-(5) R 325.605
ASBESTOS (FIBERS LONGER THAN 10 µM)	2	R 325.10604c(1)	3	R 325.10710(4), (6)
BARIUM	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
BERYLLIUM	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
CADMIUM	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
CHROMIUM (TOTAL)	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
CYANIDE (FREE)	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
FLUORIDE	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
MERCURY (INORGANIC)	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
NITRATE (AS NITROGEN)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3)-(4), (7), (9)(b)
NITRITE (AS NITROGEN)	1	R 325.10604c(1)	1, 3 [4]	R 325.10710(3)-(4), (8), (9)(b)
TOTAL NITRATE AND NITRITE (AS NITROGEN)	1	R 325.10604c(1)	3	R 325.10710(4)
SELENIUM	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
THALLIUM	2	R 325.10604c(1)	3	R 325.10710(4)-(5)
C. LEAD AND COPPER RULE (ACTION LEVEL FOR LEAD IS 0.015 MG/L, FOR COPPER IS 1.3 MG/L)				
LEAD AND COPPER RULE (TT)	2	R 325.10604f(1) – (5) AND R 325.10410	3	R 325.10710a – R 325.10710c AND R 325.10605
D. SYNTHETIC ORGANIC CHEMICALS (SOCS)				
2,4-D	2	R 325.10604d(1)	3	R 325.10717
2,4,5-TP (SILVEX)	2	R 325.10604d(1)	3	R 325.10717
ALACHLOR	2	R 325.10604d(1)	3	R 325.10717
ATRAZINE	2	R 325.10604d(1)	3	R 325.10717
BENZO(A)PYRENE (PAHS)	2	R 325.10604d(1)	3	R 325.10717
CARBOFURAN	2	R 325.10604d(1)	3	R 325.10717
CHLORDANE	2	R 325.10604d(1)	3	R 325.10717
DALAPON	2	R 325.10604d(1)	3	R 325.10717
DI (2-ETHYLHEXYL) ADIPATE	2	R 325.10604d(1)	3	R 325.10717
DI (2-ETHYLHEXYL) PHTHALATE	2	R 325.10604d(1)	3	R 325.10717
DIBROMOCHLOROPROPANE	2	R 325.10604d(1)	3	R 325.10717
DINOSEB	2	R 325.10604d(1)	3	R 325.10717
DIOXIN (2,3,7,8-TCDD)	2	R 325.10604d(1)	3	R 325.10717
DIQUAT	2	R 325.10604d(1)	3	R 325.10717

CONTAMINANT	MCL/MRDL/TT VIOLATIONS [1]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
ENDOTHALL	2	R 325.10604d(1)	3	R 325.10717
ENDRIN	2	R 325.10604d(1)	3	R 325.10717
ETHYLENE DIBROMIDE	2	R 325.10604d(1)	3	R 325.10717
GLYPHOSATE	2	R 325.10604d(1)	3	R 325.10717
HEPTACHLOR	2	R 325.10604d(1)	3	R 325.10717
HEPTACHLOR EPOXIDE	2	R 325.10604d(1)	3	R 325.10717
HEXACHLOROBENZENE	2	R 325.10604d(1)	3	R 325.10717
HEXACHLOROCYCLO-PENTADIENE	2	R 325.10604d(1)	3	R 325.10717
LINDANE	2	R 325.10604d(1)	3	R 325.10717
METHOXYCHLOR	2	R 325.10604d(1)	3	R 325.10717
OXAMYL (VYDATE)	2	R 325.10604d(1)	3	R 325.10717
PENTACHLOROPHENOL	2	R 325.10604d(1)	3	R 325.10717
PICLORAM	2	R 325.10604d(1)	3	R 325.10717
POLYCHLORINATED BIPHENYLS [PCBS]	2	R 325.10604d(1)	3	R 325.10717
SIMAZINE	2	R 325.10604d(1)	3	R 325.10717
TOXAPHENE	2	R 325.10604d(1)	3	R 325.10717
E. VOLATILE ORGANIC CHEMICALS (VOCS)				
BENZENE	2	R 325.10604b(1)	3	R 32510716
CARBON TETRACHLORIDE	2	R 325.10604b(1)	3	R 32510716
CHLOROBENZENE (MONOCHLORO-BENZENE)	2	R 325.10604b(1)	3	R 32510716
O-DICHLOROBENZENE	2	R 325.10604b(1)	3	R 32510716
P-DICHLOROBENZENE	2	R 325.10604b(1)	3	R 32510716
1,2-DICHLOROETHANE	2	R 325.10604b(1)	3	R 32510716
1,1-DICHLOROETHYLENE	2	R 325.10604b(1)	3	R 32510716
CIS-1,2-DICHLOROETHYLENE	2	R 325.10604b(1)	3	R 32510716
TRANS-1,2-DICHLOROETHYLENE	2	R 325.10604b(1)	3	R 32510716
DICHLOROMETHANE	2	R 325.10604b(1)	3	R 32510716
1,2-DICHLOROPROPANE	2	R 325.10604b(1)	3	R 32510716
ETHYLBENZENE	2	R 325.10604b(1)	3	R 32510716
STYRENE	2	R 325.10604b(1)	3	R 32510716
TETRACHLORO-ETHYLENE	2	R 325.10604b(1)	3	R 32510716
TOLUENE	2	R 325.10604b(1)	3	R 32510716
1,2,4-TRICHLOROBENZENE	2	R 325.10604b(1)	3	R 32510716
1,1,1-TRICHLOROETHANE	2	R 325.10604b(1)	3	R 32510716
1,1,2-TRICHLOROETHANE	2	R 325.10604b(1)	3	R 32510716
TRICHLOROETHYLENE	2	R 325.10604b(1)	3	R 32510716
VINYL CHLORIDE	2	R 325.10604b(1)	3	R 32510716
XYLENES (TOTAL)	2	R 325.10604b(1)	3	R 32510716
F. RADIOACTIVE CONTAMINANTS				

CONTAMINANT	MCL/MRDL/TT VIOLATIONS [1]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
BETA/PHOTON EMITTERS	2	R 325.10604	3	R 325.10605, R 325.10726, R 325.10728, R 325.10729
ALPHA EMITTERS (GROSS ALPHA)	2	R 325.10603(b)	3	R 325.10605, R 325.10722, R 325.10725
COMBINED RADIUM (226 & 228)	2	R 325.10603(a)	3	R 325.10605, R 325.10722, R 325.10725
G. DISINFECTION BYPRODUCTS (DBPS), 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 (DBPS). THE DEPARTMENT SETS STANDARDS FOR CONTROLLING THE LEVELS OF DISINFECTANTS AND DBPS IN DRINKING WATER, INCLUDING TRIHALOMETHANES (THMS) AND HALOACETIC ACIDS (HAAS).[5]				
TOTAL TRIHALOMETHANES [TTHMS]	2	R 325.10610 [6] R 325.10610b(2)(a)	3	R 325.10719a – R 325.10719e(1) AND (2)(a)
HALOACETIC ACIDS (HAAS)	2	R 325.10610 R 325.10610b(2)(a)	3	R 325.10719e(1) AND (2)(a)
BROMATE	2	R 325.10610 R 325.10610b(2)(b)	3	R 325.10719e(1) AND (2)(c)
CHLORAMINE (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) AND (3)
CHLORINE (MRDL)	2	R 325.10610a R 325.10610b(3)(a)	3	R 325.10719e(1) AND (3)
CHLORITE	2	R 325.10610 R 325.10610b(2)(c)	3	R 325.10719e(1) AND (2)(b)
CHLORINE DIOXIDE (MRDL), WHERE ANY 2 CONSECUTIVE DAILY SAMPLES AT ENTRANCE TO DISTRIBUTION SYSTEM ONLY ARE ABOVE MRDL	2	R 325.10610a R 325.10610b(3)(b)(ii)	2 [7], 3	R 325.10719e(1), (3)(b)(i) AND (iii)
CHLORINE DIOXIDE (MRDL), WHERE SAMPLE(S) IN DISTRIBUTION SYSTEM THE NEXT DAY ARE ALSO ABOVE MRDL	1 [8]	R 325.10610a R 325.10610b(3)(b)(i)	1	R 325.10719e(1), (3)(b)(ii) AND (iii)
CONTROL OF DBP PRECURSORS—TOC (TT)	2	R 325.10610b(4) R 325.10610c	3	R 325.10719e(1) AND (4)
DEVELOPMENT OF MONITORING PLAN	N/A	N/A	3	R 325.10719e(5)
H. OTHER TREATMENT TECHNIQUES				
ACRYLAMIDE (TT)	2	R 325.10604e	N/A	N/A
EPICHLOROHYDRIN (TT)	2	R 325.10604e	N/A	N/A
II. OTHER MONITORING:				

CONTAMINANT	MCL/MRDL/TT VIOLATIONS [1]		MONITORING & TESTING PROCEDURE VIOLATIONS	
	TIER OF PUBLIC NOTICE REQUIRED	CITATION	TIER OF PUBLIC NOTICE REQUIRED	CITATION
UNREGULATED CONTAMINANTS	N/A	N/A	3	R 325.10717b
NICKEL	N/A	N/A	3	R 325.10710(4), (5), AND (9)
III. PUBLIC NOTIFICATION FOR VARIANCES AND EXEMPTIONS:				
OPERATION UNDER A VARIANCE OR EXEMPTION	3	R 325.10302 AND R 325.10312	N/A	N/A
VIOLATION OF CONDITIONS OF A VARIANCE OR EXEMPTION	2	R 325.10302 AND R 325.10312	N/A	N/A
IV. OTHER SITUATIONS REQUIRING PUBLIC NOTIFICATION:				
FLUORIDE LEVEL ABOVE 2 MG/L	3	R 325.10408a(1)	N/A	N/A
EXCEEDANCE OF NITRATE MCL FOR NONCOMMUNITY SYSTEMS, AS ALLOWED BY THE DEPARTMENT	1	R 325.10604c(6)	N/A	N/A
AVAILABILITY OF UNREGULATED CONTAMINANT MONITORING DATA	3	R 325.10407	N/A	N/A
WATERBORNE DISEASE OUTBREAK	1	R 325.10734(4)	N/A	N/A
OTHER WATERBORNE EMERGENCIES AND OTHER SITUATIONS AS DETERMINED BY THE DEPARTMENT	1 OR 2 OR 3 [9]	N/A	N/A	N/A

[1] MCL - MAXIMUM CONTAMINANT LEVEL, MRDL - MAXIMUM RESIDUAL DISINFECTANT LEVEL, TT - TREATMENT TECHNIQUE.

[2] FAILURE TO TEST FOR FECAL COLIFORM OR E. COLI IS A TIER 1 VIOLATION IF TESTING IS NOT DONE AFTER ANY REPEAT SAMPLE TESTS POSITIVE FOR COLIFORM. ALL OTHER TOTAL COLIFORM MONITORING AND TESTING PROCEDURE VIOLATIONS ARE TIER 3.

[3] SYSTEMS WITH TREATMENT TECHNIQUE VIOLATIONS INVOLVING A SINGLE EXCEEDANCE OF A MAXIMUM TURBIDITY LIMIT UNDER R 325.10611b(1) ARE REQUIRED TO INITIATE CONSULTATION WITH THE DEPARTMENT WITHIN 24 HOURS AFTER LEARNING OF THE VIOLATION. BASED ON THIS CONSULTATION, THE DEPARTMENT MAY SUBSEQUENTLY DECIDE TO ELEVATE THE VIOLATION TO TIER 1. IF A SYSTEM IS UNABLE TO MAKE CONTACT WITH THE DEPARTMENT IN THE 24-HOUR PERIOD, THE VIOLATION IS AUTOMATICALLY ELEVATED TO TIER 1.

[4] FAILURE TO TAKE A CONFIRMATION SAMPLE WITHIN 24 HOURS FOR NITRATE OR NITRITE AFTER AN INITIAL SAMPLE EXCEEDS THE MCL IS A TIER 1 VIOLATION. OTHER MONITORING VIOLATIONS FOR NITRATE ARE TIER 3.

[5] SEE R 325.10610, R 325.10610a, AND R 325.10719e FOR DISINFECTION BYPRODUCT MCLS, DISINFECTANT MRDLS, AND RELATED MONITORING REQUIREMENTS.

[6] THERE ARE DIFFERENT MRDLS FOR TTHMS FOR DIFFERENT TYPES OF SYSTEMS. SEE THE FOOTNOTE IN R 325.10610(1) FOR THE MRDLS AND EFFECTIVE DATES.

[7] 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.

[8] 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.

[9] WATERBORNE EMERGENCIES REQUIRE A TIER 1 PUBLIC NOTICE. THE DEPARTMENT MAY PLACE OTHER SITUATIONS IN ANY TIER IT BELIEVES APPROPRIATE, BASED ON THREAT TO PUBLIC HEALTH.

R 325.10402 ~~Public notices, generally.~~ TIER 1 PUBLIC NOTICE – FORM, MANNER, AND FREQUENCY OF NOTICE.

Rule 402. (1) ~~Public notices issued pursuant to this part shall be conspicuous and shall not have unduly technical language, unduly small print, or employ other methods that frustrate the purpose of the notice.~~

~~(2) Notices shall include all of the following information:~~

~~(a) A discussion of the population at risk.~~

~~(b) The steps that the water system is taking to correct the problem.~~

~~(c) The necessity for seeking alternate water supplies, if any.~~

~~(d) Any preventive measures the consumer should take until the violation is corrected.~~

~~(e) The telephone number where additional information may be obtained.~~

~~(3) Where appropriate, the notice shall be multilingual.~~

~~(4) Except for monitoring violations, notices shall provide information on potential adverse health effects in accordance with language specified by the department and EPA for those parameters for which such wording is available.~~

~~(5) A supplier of water shall provide, to the department within 30 days of issuance, a copy of any public notice that is issued pursuant to this part.~~A TIER 1 PUBLIC NOTICE IS REQUIRED FOR ALL OF THE FOLLOWING VIOLATIONS AND SITUATIONS:

(a) VIOLATION OF THE MCL FOR TOTAL COLIFORMS WHEN FECAL COLIFORM OR E. COLI ARE PRESENT IN THE WATER DISTRIBUTION SYSTEM AS SPECIFIED IN R 325.10602, OR

WHEN THE SUPPLIER FAILS TO TEST FOR FECAL COLIFORMS OR E. COLI WHEN A REPEAT SAMPLE TESTS POSITIVE FOR COLIFORM AS SPECIFIED IN R 325.10707.

(b) VIOLATION OF THE MCL FOR NITRATE, NITRITE, OR TOTAL NITRATE AND NITRITE, AS DEFINED IN R 325.10604c, OR WHEN THE SUPPLIER FAILS TO TAKE A CONFIRMATION SAMPLE WITHIN 24 HOURS OF THE SUPPLIER'S RECEIPT OF THE FIRST SAMPLE RESULT SHOWING AN EXCEEDANCE OF THE NITRATE OR NITRITE MCL, AS SPECIFIED IN R 325.10710(9)(b).

(c) EXCEEDANCE OF THE NITRATE MCL BY NONCOMMUNITY WATER SYSTEMS, WHERE PERMITTED TO EXCEED THE MCL BY THE DEPARTMENT, AS REQUIRED UNDER R 325.10408b.

(d) VIOLATION OF THE MRDL FOR CHLORINE DIOXIDE, AS DEFINED IN R 325.10610a(1), WHEN 1 OR MORE SAMPLES TAKEN IN THE DISTRIBUTION SYSTEM THE DAY FOLLOWING AN EXCEEDANCE OF THE MRDL AT THE ENTRANCE OF THE DISTRIBUTION SYSTEM EXCEED THE MRDL, OR WHEN THE SUPPLIER DOES NOT TAKE THE REQUIRED SAMPLES IN THE DISTRIBUTION SYSTEM, AS SPECIFIED IN R 325.10610b(3)(b).

(e) VIOLATION OF THE TREATMENT TECHNIQUE REQUIREMENT RESULTING FROM A SINGLE EXCEEDANCE OF THE MAXIMUM ALLOWABLE TURBIDITY LIMIT UNDER R 325.10611b(1) AS IDENTIFIED IN TABLE 1 OF R 325.10401a, WHERE THE DEPARTMENT DETERMINES AFTER CONSULTATION THAT A TIER 1 NOTICE IS REQUIRED OR WHERE CONSULTATION DOES NOT TAKE PLACE WITHIN 24 HOURS AFTER THE SUPPLIER LEARNS OF THE VIOLATION.

(f) OCCURRENCE OF A WATERBORNE DISEASE OUTBREAK OR OTHER WATERBORNE EMERGENCY, SUCH AS A FAILURE OR SIGNIFICANT INTERRUPTION IN KEY WATER TREATMENT PROCESSES, A NATURAL DISASTER THAT DISRUPTS THE WATER SUPPLY OR DISTRIBUTION SYSTEM, OR A CHEMICAL SPILL OR UNEXPECTED LOADING OF POSSIBLE PATHOGENS INTO THE SOURCE WATER THAT SIGNIFICANTLY INCREASES THE POTENTIAL FOR DRINKING WATER CONTAMINATION.

(g) OTHER VIOLATIONS OR SITUATIONS WITH SIGNIFICANT POTENTIAL TO HAVE SERIOUS ADVERSE EFFECTS ON HUMAN HEALTH AS A RESULT OF SHORT-TERM EXPOSURE, AS DETERMINED BY THE DEPARTMENT EITHER IN THESE RULES OR ON A CASE-BY-CASE BASIS.

THE TIER ASSIGNMENT FOR EACH SPECIFIC VIOLATION OR SITUATION IS LISTED IN TABLE 1 OF R 325.10401a.

(2) A TIER 1 PUBLIC NOTICE SHALL BE PROVIDED PURSUANT TO ALL THE FOLLOWING PROVISIONS:

(a) SUPPLIERS SHALL PROVIDE THE PUBLIC NOTICE AS SOON AS PRACTICAL BUT NOT LATER THAN 24 HOURS AFTER THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION.

(b) THE SUPPLIER SHALL INITIATE CONSULTATION WITH THE DEPARTMENT AS SOON AS PRACTICAL, BUT NOT LATER THAN 24 HOURS AFTER THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION, TO DETERMINE ADDITIONAL PUBLIC NOTICE REQUIREMENTS.

(c) THE SUPPLIER SHALL COMPLY WITH ADDITIONAL PUBLIC NOTIFICATION REQUIREMENTS, INCLUDING REPEAT NOTICES OR DIRECTION ON THE DURATION OF THE POSTED NOTICES, ESTABLISHED AS A RESULT OF CONSULTATION WITH THE DEPARTMENT. THESE ADDITIONAL REQUIREMENTS MAY INCLUDE THE TIMING, FORM,

MANNER, FREQUENCY, AND CONTENT OF APPLICABLE REPEAT NOTICES, AND OTHER ACTIONS DESIGNED TO REACH ALL PERSONS SERVED.

(3) SUPPLIERS SHALL PROVIDE THE NOTICE WITHIN 24 HOURS IN A FORM AND MANNER REASONABLY CALCULATED TO REACH ALL PERSONS SERVED. THE FORM AND MANNER USED BY THE SUPPLIER ARE TO FIT THE SPECIFIC SITUATION, BUT SHALL BE DESIGNED TO REACH RESIDENTIAL, TRANSIENT, AND NONTRANSIENT USERS OF THE SYSTEM. IN ORDER TO REACH ALL PERSONS SERVED, SUPPLIERS SHALL USE, AT A MINIMUM, 1OR MORE OF THE FOLLOWING FORMS OF DELIVERY:

(a) APPROPRIATE BROADCAST MEDIA, SUCH AS RADIO AND TELEVISION.

(b) POSTING OF THE NOTICE IN CONSPICUOUS LOCATIONS THROUGHOUT THE AREA SERVED BY THE SYSTEM.

(c) HAND DELIVERY OF THE NOTICE TO PERSONS SERVED BY THE SYSTEM.

(d) ANOTHER DELIVERY METHOD APPROVED, IN WRITING, BY THE DEPARTMENT.

R 325.10403 ~~Public notices for violations of state drinking water standard; failure to comply with variance or exemption schedule.~~ TIER 2 PUBLIC NOTICE – FORM, MANNER, AND FREQUENCY OF NOTICE.

Rule 403. (1) ~~If the supplier of water violates a state drinking water standard or fails to comply with a variance or exemption schedule, the supplier of water shall provide public notice of such violation or failure by publishing such notice in a daily or weekly newspaper of general circulation, whichever method will provide the most direct notification to customers, as soon as possible, but within 14 days of the violation or failure. For acute violations specified in subrule (4) of this rule, the supplier of water shall, in addition, furnish a copy of the notice to the radio and television stations serving the area as soon as possible, but not later than 72 hours after the violation. Where newspaper notice is not feasible, or if the public water supply is a noncommunity public water supply or small privately owned community public water supply, newspaper notice may be replaced by hand delivery or continuous posting of the notice within 14 days after the violation or failure, whichever method will provide the most direct notification to customers, or, for acute violations specified in subrule (4) of this rule, within 72 hours.~~

~~(2) In addition to the requirements of subrule (1) of this rule, those suppliers that give newspaper notice shall also provide notice by direct mail, with the water bill or by hand delivery, not later than 45 days after the violation or failure. The department may waive, in writing, the requirements of this subrule if the department determines that the supplier of water has corrected the violation or failure within the 45-day period.~~

~~(3) Repeat notice of a violation of a state drinking water standard or the failure to comply with a variance or exemption schedule shall be made by mail or hand delivery every 3 months for as long as the violation or failure exists. If posting is used in place of newspaper notice, it shall continue for as long as the violation or failure exists.~~

~~(4) Acute violations covered by subrule (1) of this rule are violations of the MCL for nitrate, nitrite, the MCL for total coliform as defined in R 325.10602(c), and other violations or conditions that the department has determined to be an imminent hazard.~~

~~(5) In determining compliance with the inorganic chemical, volatile organic chemical, or synthetic organic chemical MCLs, if a public water supply has a distribution system which is separable from other parts of the distribution system and which does not have interconnections, the department may allow the owners or operators of the system to give public notice to only the area that is served by that portion of the system which is not in compliance.~~A TIER 2 PUBLIC NOTICE IS REQUIRED FOR ALL OF THE FOLLOWING VIOLATIONS AND SITUATIONS:

(a) ALL VIOLATIONS OF THE MCL, MRDL, AND TREATMENT TECHNIQUE REQUIREMENTS, EXCEPT WHERE A TIER 1 NOTICE IS REQUIRED UNDER R 325.10402(1) OR WHERE THE DEPARTMENT DETERMINES THAT A TIER 1 NOTICE IS REQUIRED.
(b) VIOLATIONS OF THE MONITORING AND TESTING PROCEDURE REQUIREMENTS, WHERE THE DEPARTMENT DETERMINES THAT A TIER 2 RATHER THAN A TIER 3 PUBLIC NOTICE IS REQUIRED, TAKING INTO ACCOUNT POTENTIAL HEALTH IMPACTS AND PERSISTENCE OF THE VIOLATION.
(c) FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF A VARIANCE OR EXEMPTION IN PLACE.
THE TIER ASSIGNMENT FOR EACH SPECIFIC VIOLATION OR SITUATION IS LISTED IN TABLE 1 OF R 325.10401a.
(2) A TIER 2 PUBLIC NOTICE SHALL BE PROVIDED PURSUANT TO ALL THE FOLLOWING PROVISIONS:
(a) SUPPLIERS SHALL PROVIDE THE PUBLIC NOTICE AS SOON AS PRACTICAL, BUT NOT LATER THAN 30 DAYS AFTER THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION. IF THE PUBLIC NOTICE IS POSTED, THE NOTICE SHALL REMAIN IN PLACE FOR AS LONG AS THE VIOLATION OR SITUATION EXISTS, BUT NOT FOR LESS THAN 7 DAYS, EVEN IF THE VIOLATION OR SITUATION IS RESOLVED. THE DEPARTMENT MAY, ON A CASE-BY-CASE BASIS, ALLOW ADDITIONAL TIME FOR THE INITIAL NOTICE OF UP TO 3 MONTHS FROM THE DATE THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION. CIRCUMSTANCES THAT MAY WARRANT AN EXTENSION INCLUDE, BUT ARE NOT LIMITED TO, COORDINATION WITH BILLING CYCLES FOR MAILING PURPOSES AND VIOLATIONS THAT WERE QUICKLY RESOLVED AND NO LONGER POSE ANY RISK TO PERSONS SERVED. THE DEPARTMENT WILL NOT GRANT AN EXTENSION TO THE 30-DAY DEADLINE FOR AN UNRESOLVED VIOLATION POSING POTENTIAL RISK FROM SHORT-TERM EXPOSURE. EXTENSIONS GRANTED BY THE DEPARTMENT SHALL BE IN WRITING.
(b) THE SUPPLIER SHALL REPEAT THE NOTICE EVERY 3 MONTHS AS LONG AS THE VIOLATION OR SITUATION EXISTS, UNLESS THE DEPARTMENT DETERMINES THAT APPROPRIATE CIRCUMSTANCES WARRANT A DIFFERENT REPEAT NOTICE FREQUENCY. THE REPEAT NOTICE SHALL NOT BE GIVEN LESS FREQUENTLY THAN ONCE PER YEAR. THE DEPARTMENT WILL NOT ALLOW LESS FREQUENT REPEAT NOTICE FOR AN MCL VIOLATION OF TOTAL COLIFORM UNDER R 325.10602 OR A TREATMENT TECHNIQUE VIOLATION OF FILTRATION OR DISINFECTION UNDER R 325.10611, R 325.10611a, OR R 325.10611b. THE DEPARTMENT MAY, ON A CASE-BY-CASE BASIS, REDUCE THE REPEAT NOTICE FREQUENCY FOR OTHER ONGOING VIOLATIONS REQUIRING A TIER 2 REPEAT NOTICE. CIRCUMSTANCES THAT MAY WARRANT A REDUCTION IN FREQUENCY INCLUDE, BUT ARE NOT LIMITED TO, COORDINATION WITH BILLING CYCLES FOR MAILING PURPOSES AND CONSOLIDATING NOTICES FOR VIOLATIONS AND SITUATIONS OCCURRING WITHIN A GIVEN YEAR INTO AN ANNUAL NOTICE TO PROVIDE FOR MORE EFFECTIVE COMMUNICATION WITH THE CONSUMER. DEPARTMENT DETERMINATIONS ALLOWING REPEAT NOTICES TO BE GIVEN LESS FREQUENTLY THAN ONCE EVERY 3 MONTHS SHALL BE IN WRITING.
(c) FOR THE TURBIDITY VIOLATIONS SPECIFIED IN THIS SUBDIVISION, SUPPLIERS SHALL CONSULT WITH THE DEPARTMENT AS SOON AS PRACTICAL BUT NOT LATER THAN 24 HOURS AFTER THE SUPPLIER LEARNS OF THE VIOLATION, TO DETERMINE WHETHER A

TIER 1 PUBLIC NOTICE UNDER R 325.10402(1) IS REQUIRED TO PROTECT PUBLIC HEALTH. WHEN CONSULTATION DOES NOT TAKE PLACE WITHIN THE 24-HOUR PERIOD, THE SUPPLIER SHALL DISTRIBUTE A TIER 1 NOTICE OF THE VIOLATION WITHIN THE NEXT 24 HOURS, WHICH SHALL BE NOT MORE THAN 48 HOURS AFTER THE SUPPLIER LEARNS OF THE VIOLATION, AND SHALL FOLLOW THE REQUIREMENTS UNDER R 325.10402(2) AND (3). CONSULTATION WITH THE DEPARTMENT IS REQUIRED FOR VIOLATIONS OF THE TREATMENT TECHNIQUE REQUIREMENT UNDER R 325.10611 RESULTING FROM A SINGLE EXCEEDANCE OF THE MAXIMUM ALLOWABLE TURBIDITY LIMIT UNDER R 325.611b.

(3) SUPPLIERS SHALL PROVIDE THE INITIAL TIER 2 PUBLIC NOTICE AND APPLICABLE REPEAT NOTICES IN A FORM AND MANNER THAT IS REASONABLY CALCULATED TO REACH PERSONS SERVED IN THE REQUIRED TIME PERIOD. THE FORM AND MANNER OF THE PUBLIC NOTICE MAY VARY BASED ON THE SPECIFIC SITUATION AND TYPE OF SYSTEM, BUT IT SHALL, AT A MINIMUM, MEET ALL OF THE FOLLOWING REQUIREMENTS:

(a) UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT, IN WRITING, SUPPLIERS OF COMMUNITY WATER SYSTEMS SHALL PROVIDE NOTICE BY USING BOTH OF THE FOLLOWING FORMS OF DELIVERY:

(i) MAIL OR OTHER DIRECT DELIVERY TO EACH CUSTOMER RECEIVING A BILL AND TO OTHER SERVICE CONNECTIONS TO WHICH WATER IS DELIVERED BY THE SUPPLIER.

(ii) OTHER METHODS REASONABLY CALCULATED TO REACH OTHER PERSONS REGULARLY SERVED BY THE SYSTEM, IF THEY WOULD NOT NORMALLY BE REACHED BY THE NOTICE REQUIRED IN PARAGRAPH (i) OF THIS SUBDIVISION. OTHER PERSONS SERVED MAY INCLUDE THOSE WHO DO NOT PAY WATER BILLS OR DO NOT HAVE SERVICE CONNECTION ADDRESSES, SUCH AS HOUSE RENTERS, APARTMENT DWELLERS, UNIVERSITY STUDENTS, NURSING HOME PATIENTS, AND PRISON INMATES. OTHER METHODS MAY INCLUDE ANY OF THE FOLLOWNG:

(A) PUBLICATION IN A LOCAL NEWSPAPER.

(B) DELIVERY OF MULTIPLE COPIES FOR DISTRIBUTION BY CUSTOMERS THAT PROVIDE THEIR DRINKING WATER TO OTHERS, SUCH AS APARTMENT BUILDING OWNERS OR LARGE PRIVATE EMPLOYERS.

(C) POSTING IN PUBLIC PLACES SERVED BY THE SYSTEM OR ON THE INTERNET.

(D) DELIVERY TO COMMUNITY ORGANIZATIONS.

(b) UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT, IN WRITING, SUPPLIERS OF NONCOMMUNITY WATER SYSTEMS SHALL USE BOTH OF THE FOLLOWING FORMS OF DELIVERY:

(i) POSTING THE NOTICE IN CONSPICUOUS LOCATIONS THROUGHOUT THE DISTRIBUTION SYSTEM FREQUENTED BY PERSONS SERVED BY THE SYSTEM, OR MAILING OR DIRECTLY DELIVERING TO EACH CUSTOMER AND SERVICE CONNECTION, WHERE KNOWN.

(ii) OTHER METHODS REASONABLY CALCULATED TO REACH OTHER PERSONS SERVED BY THE SYSTEM IF THEY WOULD NOT NORMALLY BE REACHED BY THE NOTICE REQUIRED IN PARAGRAPH (i) OF THIS SUBDIVISION. OTHER PERSONS SERVED MAY INCLUDE THOSE WHO MAY NOT SEE A POSTED NOTICE BECAUSE THE NOTICE IS NOT IN A LOCATION THEY ROUTINELY PASS BY. OTHER METHODS MAY INCLUDE ANY OF THE FOLLOWING:

(A) PUBLICATION IN A LOCAL NEWSPAPER OR NEWSLETTER DISTRIBUTED TO CUSTOMERS.

(B) USE OF E-MAIL TO NOTIFY EMPLOYEES OR STUDENTS.

(C) DELIVERY OF MULTIPLE COPIES IN CENTRAL LOCATIONS, SUCH AS COMMUNITY CENTERS.

R 325.10404 ~~Public notice for failure to monitor or for issuance of an order of exemption or order of variance.~~ TIER 3 PUBLIC NOTICE – FORM, MANNER, AND FREQUENCY OF NOTICE.

Rule 404. (1) ~~If a supplier of water fails to comply with a monitoring requirement at the point of entry or from the distribution system or has been issued an order of exemption or order of variance, the supplier of water shall issue public notice by publishing such notice in a daily or weekly newspaper of general circulation, whichever method will provide the most direct notification to customers, within 3 months of the violation or the date the order was issued. Where newspaper notice is not feasible, or if the public water supply is a noncommunity public water supply or a small privately owned community public water supply, newspaper notice may be replaced by hand delivery or continuous, for the duration of the violation, posting of the notice within 3 months of the violation or the date the order was issued.~~

~~(2) If a supplier of water fails to comply with the coliform monitoring requirement specified in part 7 of these rules, the supplier of water shall report the violation to the department within 10 days after discovering the violation.~~

~~(3) Repeat notice shall be provided by the supplier of water by mail or hand delivery every 3 months for the duration of the violation or as long as the variance or exemption remains in effect.~~

~~(4) In lieu of the requirements specified in subrule (1) of this rule, a supplier of water may, with the approval of the department, give less frequent notice for monitoring violations if a MCL or monitoring violation has not occurred in any of the 3 preceding months. Notice of monitoring violations shall be given at least annually.~~A TIER 3 PUBLIC NOTICE IS REQUIRED FOR ALL OF THE FOLLOWING VIOLATIONS AND SITUATIONS LISTED IN THIS SUBRULE:

(a) MONITORING VIOLATIONS UNDER PART 7 OF THESE RULES, EXCEPT WHERE A TIER 1 NOTICE IS REQUIRED UNDER R 325.10402(1) OR WHERE THE DEPARTMENT DETERMINES THAT A TIER 2 NOTICE IS REQUIRED.

(b) FAILURE TO COMPLY WITH A TESTING PROCEDURE ESTABLISHED IN PART 6 OF THESE RULES, EXCEPT WHERE A TIER 1 NOTICE IS REQUIRED UNDER R 325.10402(1) OR WHERE THE DEPARTMENT DETERMINES THAT A TIER 2 NOTICE IS REQUIRED.

(c) OPERATION UNDER A VARIANCE OR EXEMPTION GRANTED UNDER SECTION 20 OF THE SAFE DRINKING WATER ACT, 1976 PA 399, MCL 325.1001 ET SEQ. AND PART 3 OF THESE RULES.

(d) AVAILABILITY OF UNREGULATED CONTAMINANT MONITORING RESULTS, AS REQUIRED UNDER R 325.10407.

(e) FLUORIDE LEVEL ABOVE 2 MG/L AS SPECIFIED IN R 325.10408a.

THE TIER ASSIGNMENT FOR EACH SPECIFIC VIOLATION OR SITUATION IS LISTED IN TABLE 1 OF R 325.10401a.

(2) A TIER 3 PUBLIC NOTICE SHALL BE PROVIDED PURSUANT TO ALL THE FOLLOWING PROVISIONS:

(a) SUPPLIERS SHALL PROVIDE THE PUBLIC NOTICE NOT LATER THAN 1 YEAR AFTER THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION OR BEGINS OPERATING UNDER A VARIANCE OR EXEMPTION. FOLLOWING THE INITIAL NOTICE, THE SUPPLIER SHALL REPEAT THE NOTICE ANNUALLY FOR AS LONG AS THE VIOLATION, VARIANCE, EXEMPTION, OR OTHER SITUATION EXISTS. IF THE PUBLIC NOTICE IS POSTED, THE NOTICE SHALL REMAIN IN PLACE FOR AS LONG AS THE VIOLATION, VARIANCE,

EXEMPTION, OR OTHER SITUATION EXISTS, BUT FOR NOT LESS THAN 7 DAYS, EVEN IF THE VIOLATION OR SITUATION IS RESOLVED.

(b) INSTEAD OF INDIVIDUAL TIER 3 PUBLIC NOTICES, A SUPPLIER MAY USE AN ANNUAL REPORT DETAILING ALL VIOLATIONS AND SITUATIONS THAT OCCURRED DURING THE PREVIOUS 12 MONTHS, AS LONG AS THE TIMING REQUIREMENTS OF SUBDIVISION (a) OF THIS SUBRULE ARE MET.

(3) SUPPLIERS SHALL PROVIDE THE INITIAL TIER 3 PUBLIC NOTICE AND APPLICABLE REPEAT NOTICES IN A FORM AND MANNER THAT IS REASONABLY CALCULATED TO REACH PERSONS SERVED IN THE REQUIRED TIME PERIOD. THE FORM AND MANNER OF THE PUBLIC NOTICE MAY VARY BASED ON THE SPECIFIC SITUATION AND TYPE OF SYSTEM, BUT IT SHALL, AT A MINIMUM, MEET ALL OF THE FOLLOWING REQUIREMENTS:

(a) UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT, IN WRITING, SUPPLIERS OF COMMUNITY WATER SYSTEMS SHALL PROVIDE NOTICE BY USING BOTH OF THE FOLLOWING FORMS OF DELIVERY:

(i) MAIL OR OTHER DIRECT DELIVERY TO EACH CUSTOMER RECEIVING A BILL AND TO OTHER SERVICE CONNECTIONS TO WHICH WATER IS DELIVERED BY THE SUPPLIER.

(ii) OTHER METHODS REASONABLY CALCULATED TO REACH OTHER PERSONS REGULARLY SERVED BY THE SYSTEM, IF THEY WOULD NOT NORMALLY BE REACHED BY THE NOTICE REQUIRED IN PARAGRAPH (i) OF THIS SUBDIVISION. OTHER PERSONS SERVED MAY INCLUDE THOSE WHO DO NOT PAY WATER BILLS OR DO NOT HAVE SERVICE CONNECTION ADDRESSES, SUCH AS HOUSE RENTERS, APARTMENT DWELLERS, UNIVERSITY STUDENTS, NURSING HOME PATIENTS, AND PRISON INMATES. OTHER METHODS MAY INCLUDE ANY OF THE FOLLOWING:

(A) PUBLICATION IN A LOCAL NEWSPAPER.

(B) DELIVERY OF MULTIPLE COPIES FOR DISTRIBUTION BY CUSTOMERS THAT PROVIDE THEIR DRINKING WATER TO OTHERS, SUCH AS APARTMENT BUILDING OWNERS OR LARGE PRIVATE EMPLOYERS.

(C) POSTING IN PUBLIC PLACES SERVED BY THE SYSTEM OR ON THE INTERNET.

(D) DELIVERY TO COMMUNITY ORGANIZATIONS.

(b) UNLESS DIRECTED OTHERWISE BY THE DEPARTMENT, IN WRITING, SUPPLIERS OF NONCOMMUNITY WATER SYSTEMS SHALL PROVIDE NOTICE BY USING BOTH OF THE FOLLOWING FORMS OF DELIVERY:

(i) POSTING THE NOTICE IN CONSPICUOUS LOCATIONS THROUGHOUT THE DISTRIBUTION SYSTEM FREQUENTED BY PERSONS SERVED BY THE SYSTEM OR MAILING OR DIRECTLY DELIVERING TO EACH CUSTOMER AND SERVICE CONNECTION, WHERE KNOWN.

(ii) OTHER METHODS REASONABLY CALCULATED TO REACH OTHER PERSONS SERVED BY THE SYSTEM IF THEY WOULD NOT NORMALLY BE REACHED BY THE NOTICE REQUIRED IN PARAGRAPH (i) OF THIS SUBDIVISION. OTHER PERSONS SERVED MAY INCLUDE THOSE WHO MAY NOT SEE A POSTED NOTICE BECAUSE THE NOTICE IS NOT IN A LOCATION THEY ROUTINELY PASS BY. OTHER METHODS MAY INCLUDE ANY OF THE FOLLOWING:

(A) PUBLICATION IN A LOCAL NEWSPAPER OR NEWSLETTER DISTRIBUTED TO CUSTOMERS.

(B) USE OF E-MAIL TO NOTIFY EMPLOYEES OR STUDENTS.

(C) DELIVERY OF MULTIPLE COPIES IN CENTRAL LOCATIONS, SUCH AS COMMUNITY CENTERS.

(4) FOR COMMUNITY WATER SYSTEMS, THE CONSUMER CONFIDENCE REPORT (CCR) REQUIRED UNDER R 325.10411 THROUGH R 325.10415 MAY BE USED AS A VEHICLE FOR THE INITIAL TIER 3 PUBLIC NOTICE AND ALL REQUIRED REPEAT NOTICES, IF ALL OF THE FOLLOWING REQUIREMENTS ARE SATISFIED:
(a) THE CCR IS PROVIDED TO PERSONS SERVED NOT LATER THAN 12 MONTHS AFTER THE SUPPLIER LEARNS OF THE VIOLATION OR SITUATION AS REQUIRED UNDER SUBRULE (2) OF THIS RULE.
(b) THE TIER 3 NOTICE CONTAINED IN THE CCR FOLLOWS THE CONTENT REQUIREMENTS UNDER R 325.10405.
(c) THE CCR IS DISTRIBUTED FOLLOWING THE DELIVERY REQUIREMENTS UNDER SUBRULE (3) OF THIS RULE.

R 325.10405 ~~Notification of customers of public water supply that imminent hazard exists.~~ CONTENT OF THE PUBLIC NOTICE.
Rule 405. ~~In situations where the director determines that an imminent hazard to the public health exists, the director may order the owner of a public water supply to make immediate notification to all customers or users of that public water supply. The notice shall contain the preventive or precautionary measures that should be taken by the customers or users of the public water supply to protect the public health.~~(1) WHEN A SYSTEM HAS A VIOLATION OR SITUATION REQUIRING PUBLIC NOTIFICATION, 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) WHETHER ALTERNATIVE WATER SUPPLIES SHOULD BE USED.
(f) WHAT ACTIONS CONSUMERS SHOULD TAKE, INCLUDING WHEN THEY SHOULD SEEK MEDICAL HELP, IF KNOWN.
(g) WHAT THE SUPPLIER IS DOING TO CORRECT THE VIOLATION OR SITUATION.
(h) WHEN THE SUPPLIER EXPECTS TO RETURN TO COMPLIANCE OR RESOLVE THE SITUATION.
(i) THE NAME, BUSINESS ADDRESS, AND PHONE NUMBER OF THE SUPPLIER OR DESIGNEE OF THE SUPPLIER AS A SOURCE OF ADDITIONAL INFORMATION CONCERNING THE NOTICE.
(j) A STATEMENT TO ENCOURAGE THE NOTICE RECIPIENT TO DISTRIBUTE THE PUBLIC NOTICE TO OTHER PERSONS SERVED, USING THE STANDARD LANGUAGE UNDER SUBRULE (4)(c) OF THIS RULE, WHERE APPLICABLE.
(2) ALL OF THE FOLLOWING ELEMENTS SHALL BE INCLUDED IN THE PUBLIC NOTICE FOR PUBLIC WATER SYSTEMS OPERATING UNDER A VARIANCE OR EXEMPTION:
(a) IF A PUBLIC WATER SYSTEM HAS BEEN GRANTED A VARIANCE OR AN EXEMPTION, THE PUBLIC NOTICE SHALL CONTAIN ALL OF THE FOLLOWING ELEMENTS:

(i) AN EXPLANATION OF THE REASONS FOR THE VARIANCE OR EXEMPTION.
(ii) THE DATE ON WHICH THE VARIANCE OR EXEMPTION WAS ISSUED.
(iii) A BRIEF STATUS REPORT ON THE STEPS THE SUPPLIER IS TAKING TO INSTALL TREATMENT, FIND ALTERNATIVE SOURCES OF WATER, OR OTHERWISE COMPLY WITH THE TERMS AND SCHEDULES OF THE VARIANCE OR EXEMPTION.
(iv) A NOTICE OF OPPORTUNITIES FOR PUBLIC INPUT IN THE REVIEW OF THE VARIANCE OR EXEMPTION.
(b) IF A PUBLIC WATER SYSTEM VIOLATES THE CONDITIONS OF A VARIANCE OR EXEMPTION, THE PUBLIC NOTICE SHALL CONTAIN THE 10 ELEMENTS LISTED IN SUBRULE (1) OF THIS RULE.
(3) THE PUBLIC NOTICE SHALL BE PRESENTED AS SPECIFIED IN THIS SUBRULE.
(a) EACH PUBLIC NOTICE REQUIRED BY THIS PART SHALL MEET ALL OF THE FOLLOWING CRITERIA:
(i) SHALL BE DISPLAYED IN A CONSPICUOUS WAY WHEN PRINTED OR POSTED.
(ii) SHALL NOT CONTAIN OVERLY TECHNICAL LANGUAGE OR VERY SMALL PRINT.
(iii) SHALL NOT BE FORMATTED IN A WAY THAT DEFEATS THE PURPOSE OF THE NOTICE.
(iv) SHALL NOT CONTAIN LANGUAGE WHICH NULLIFIES THE PURPOSE OF THE NOTICE.
(b) IN COMMUNITIES WHERE MORE THAN 10% OF THE CONSUMERS ARE NON-ENGLISH SPEAKING CONSUMERS, THE PUBLIC NOTICE SHALL CONTAIN INFORMATION IN THE APPROPRIATE LANGUAGE OR LANGUAGES REGARDING THE IMPORTANCE OF THE NOTICE OR CONTAIN A TELEPHONE NUMBER OR ADDRESS WHERE PERSONS SERVED MAY CONTACT THE SUPPLIER TO OBTAIN A TRANSLATED COPY OF THE NOTICE OR TO REQUEST ASSISTANCE IN THE APPROPRIATE LANGUAGE.
(4) SUPPLIERS SHALL INCLUDE THE FOLLOWING STANDARD LANGUAGE IN THEIR PUBLIC NOTICE:
(a) SUPPLIERS 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) SUPPLIERS SHALL INCLUDE THE FOLLOWING LANGUAGE IN THEIR 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) SUPPLIERS SHALL INCLUDE IN THEIR 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

AL=ACTION LEVEL	MREM/YEAR=MILLIREMS PER YEAR (A MEASURE OF RADIATION ABSORBED BY THE BODY)	PPB=PARTS PER BILLION, OR MICROGRAMS PER LITER (µG/L)
MCL=MAXIMUM CONTAMINANT LEVEL	N/A=NOT APPLICABLE	PPT=PARTS PER TRILLION, OR NANOGRAMS PER LITER
MCLG=MAXIMUM CONTAMINANT LEVEL GOAL	NTU=NEPHELOMETRIC TURBIDITY UNITS (A MEASURE OF WATER CLARITY)	PPQ=PARTS PER QUADRILLION, OR PICOGRAMS PER LITER
MFL=MILLION FIBERS PER LITER	PCI/L=PICOCURIES PER LITER (A MEASURE OF RADIOACTIVITY)	TT=TREATMENT TECHNIQUE
MRDL=MAXIMUM RESIDUAL DISINFECTANT LEVEL	PPM=PARTS PER MILLION, OR MILLIGRAMS PER LITER (MG/L)	
MRDLG=MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL		

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
MICROBIOLOGICAL CONTAMINANTS						
TOTAL COLIFORM BACTERIA	MCL: FOR WATER SYSTEMS ANALYZING 40 OR MORE SAMPLES PER MONTH, NO MORE THAN 5.0% OF THE MONTHLY SAMPLES MAY BE POSITIVE FOR TOTAL COLIFORM. FOR SYSTEMS ANALYZING FEWER THAN 40 SAMPLES PER MONTH, NO MORE THAN 1 SAMPLE PER MONTH MAY BE POSITIVE FOR TOTAL COLIFORM.			ZERO	NATURALLY PRESENT IN THE ENVIRONMENT	COLIFORMS ARE BACTERIA THAT ARE NATURALLY PRESENT IN THE ENVIRONMENT AND ARE USED AS AN INDICATOR THAT OTHER, POTENTIALLY-HARMFUL, BACTERIA MAY BE PRESENT. COLIFORMS WERE FOUND IN MORE SAMPLES THAN ALLOWED AND THIS WAS A WARNING OF POTENTIAL PROBLEMS.
FECAL COLIFORM AND E. COLI	ZERO	NO CONVERSION NECESSARY	ZERO	ZERO	HUMAN AND ANIMAL FECAL WASTE	FECAL COLIFORMS AND E. COLI ARE BACTERIA WHOSE PRESENCE INDICATES THAT THE WATER MAY BE CONTAMINATED WITH HUMAN OR ANIMAL WASTES. MICROBES IN THESE WASTES CAN CAUSE SHORT-TERM EFFECTS, SUCH AS DIARRHEA, CRAMPS, NAUSEA, HEADACHES, OR OTHER SYMPTOMS. THEY MAY POSE A SPECIAL HEALTH RISK FOR INFANTS, YOUNG CHILDREN, SOME OF THE ELDERLY, AND PEOPLE WITH SEVERELY COMPROMISED IMMUNE SYSTEMS.
TURBIDITY (NTU)	TT*	NO CONVERSION NECESSARY	TT*	N/A	SOIL RUNOFF	TURBIDITY HAS NO HEALTH EFFECTS. HOWEVER, TURBIDITY CAN INTERFERE WITH DISINFECTION AND PROVIDE A MEDIUM FOR MICROBIAL GROWTH. TURBIDITY MAY INDICATE THE PRESENCE OF DISEASE-CAUSING ORGANISMS. THESE ORGANISMS INCLUDE BACTERIA, VIRUSES, AND PARASITES THAT CAN CAUSE SYMPTOMS SUCH AS NAUSEA, CRAMPS, DIARRHEA AND ASSOCIATED HEADACHES.
	** R 325.10611b SETS TURBIDITY STANDARDS FOR DIFFERENT TYPES OF SYSTEMS*.					
OTHER MICROBIOLOGICAL CONTAMINANTS						

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
GIARDIA LAMBLIA, VIRUSES, HETEROTROPHIC PLATE COUNT (HPC) BACTERIA, LEGIONELLA, CRYPTOSPORIDIUM	TT	NO CONVERSION NECESSARY	TT	ZERO	NATURALLY PRESENT IN THE ENVIRONMENT	INADEQUATELY TREATED WATER MAY CONTAIN DISEASE-CAUSING ORGANISMS. THESE ORGANISMS INCLUDE BACTERIA, VIRUSES, AND PARASITES WHICH CAN CAUSE SYMPTOMS SUCH AS NAUSEA, CRAMPS, DIARRHEA, AND ASSOCIATED HEADACHES.
INORGANIC CONTAMINANTS						
ANTIMONY (PPB)	0.006	1000	6	6	DISCHARGE FROM PETROLEUM REFINERIES; FIRE RETARDANTS; CERAMICS; ELECTRONICS; SOLDER	SOME PEOPLE WHO DRINK WATER CONTAINING ANTIMONY WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE INCREASES IN BLOOD CHOLESTEROL AND DECREASES IN BLOOD SUGAR.
ARSENIC (PPB)	0.05	1000	50	N/A	EROSION OF NATURAL DEPOSITS; RUNOFF FROM ORCHARDS; RUNOFF FROM GLASS AND ELECTRONICS PRODUCTION WASTES	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.
ASBESTOS [FIBERS LONGER THAN 10 µM] (MFL)	7 MFL	NO CONVERSION NECESSARY	7	7	DECAY OF ASBESTOS CEMENT WATER MAINS; EROSION OF NATURAL DEPOSITS	SOME PEOPLE WHO DRINK WATER CONTAINING ASBESTOS IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF DEVELOPING BENIGN INTESTINAL POLYPS.
BARIUM (PPM)	2	NO CONVERSION NECESSARY	2	2	DISCHARGE OF DRILLING WASTES; DISCHARGE FROM METAL REFINERIES; EROSION OF NATURAL DEPOSITS	SOME PEOPLE WHO DRINK WATER CONTAINING BARIUM IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE AN INCREASE IN THEIR BLOOD PRESSURE.
BERYLLIUM (PPB)	0.004	1000	4	4	DISCHARGE FROM METAL REFINERIES AND COAL-BURNING FACTORIES; DISCHARGE FROM ELECTRICAL, AEROSPACE, AND DEFENSE INDUSTRIES	SOME PEOPLE WHO DRINK WATER CONTAINING BERYLLIUM WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD DEVELOP INTESTINAL LESIONS.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
CADMIUM (PPB)	0.005	1000	5	5	CORROSION OF GALVANIZED PIPES; EROSION OF NATURAL DEPOSITS; DISCHARGE FROM METAL REFINERIES; RUNOFF FROM WASTE BATTERIES AND PAINTS	SOME PEOPLE WHO DRINK WATER CONTAINING CADMIUM IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE KIDNEY DAMAGE.
CHROMIUM [TOTAL] (PPB)	0.1	1000	100	100	DISCHARGE FROM STEEL AND PULP MILLS; EROSION OF NATURAL DEPOSITS	SOME PEOPLE WHO USE WATER CONTAINING CHROMIUM WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE ALLERGIC DERMATITIS.
CYANIDE [FREE] (PPB)	0.2	1000	200	200	DISCHARGE FROM STEEL/METAL FACTORIES; DISCHARGE FROM PLASTIC AND FERTILIZER FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING CYANIDE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE NERVE DAMAGE OR PROBLEMS WITH THEIR THYROID.
FLUORIDE (PPM)	4	NO CONVERSION NECESSARY	4	4	EROSION OF NATURAL DEPOSITS; WATER ADDITIVE THAT PROMOTES STRONG TEETH; DISCHARGE FROM FERTILIZER AND ALUMINUM FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING FLUORIDE IN EXCESS OF THE MCL OVER MANY YEARS COULD GET BONE DISEASE, INCLUDING PAIN AND TENDERNESS OF THE BONES. FLUORIDE IN DRINKING WATER AT HALF THE MCL OR MORE MAY CAUSE MOTTLING OF CHILDREN'S TEETH, USUALLY IN CHILDREN LESS THAN 9 YEARS OLD. MOTTLING, ALSO KNOWN AS DENTAL FLUOROSIS, MAY INCLUDE BROWN STAINING AND/OR PITTING OF THE TEETH, AND OCCURS ONLY IN DEVELOPING TEETH BEFORE THEY ERUPT FROM THE GUMS.
MERCURY [INORGANIC] (PPB)	0.002	1000	2	2	EROSION OF NATURAL DEPOSITS; DISCHARGE FROM REFINERIES AND FACTORIES; RUNOFF FROM LANDFILLS; RUNOFF FROM CROPLAND	SOME PEOPLE WHO DRINK WATER CONTAINING INORGANIC MERCURY WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE KIDNEY DAMAGE.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
NITRATE [AS NITROGEN] (PPM)	10	NO CONVERSION NECESSARY	10	10	RUNOFF FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS, SEWAGE; EROSION OF NATURAL DEPOSITS	INFANTS BELOW THE AGE OF 6 MONTHS WHO DRINK WATER CONTAINING NITRATE IN EXCESS OF THE MCL COULD BECOME SERIOUSLY ILL AND, IF UNTREATED, MAY DIE. SYMPTOMS INCLUDE SHORTNESS OF BREATH AND BLUE BABY SYNDROME.
NITRITE [AS NITROGEN] (PPM)	1	NO CONVERSION NECESSARY	1	1	RUNOFF FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS, SEWAGE; EROSION OF NATURAL DEPOSITS	INFANTS BELOW THE AGE OF 6 MONTHS WHO DRINK WATER CONTAINING NITRITE IN EXCESS OF THE MCL COULD BECOME SERIOUSLY ILL AND, IF UNTREATED, MAY DIE. SYMPTOMS INCLUDE SHORTNESS OF BREATH AND BLUE BABY SYNDROME.
TOTAL NITRATE AND NITRITE [AS NITROGEN] (PPM)	10	NO CONVERSION NECESSARY	10	10	RUNOFF FROM FERTILIZER USE; LEACHING FROM SEPTIC TANKS, SEWAGE; EROSION OF NATURAL DEPOSITS	INFANTS BELOW THE AGE OF 6 MONTHS WHO DRINK WATER CONTAINING NITRATE AND NITRITE IN EXCESS OF THE MCL COULD BECOME SERIOUSLY ILL AND, IF UNTREATED, MAY DIE. SYMPTOMS INCLUDE SHORTNESS OF BREATH AND BLUE BABY SYNDROME.
SELENIUM (PPB)	0.05	1000	50	50	DISCHARGE FROM PETROLEUM AND METAL REFINERIES; EROSION OF NATURAL DEPOSITS; DISCHARGE FROM MINES	SELENIUM IS AN ESSENTIAL NUTRIENT. HOWEVER, SOME PEOPLE WHO DRINK WATER CONTAINING SELENIUM IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE HAIR OR FINGERNAIL LOSSES, NUMBNESS IN FINGERS OR TOES, OR PROBLEMS WITH THEIR CIRCULATION.
THALLIUM (PPB)	0.002	1000	2	0.5	LEACHING FROM ORE-PROCESSING SITES; DISCHARGE FROM ELECTRONICS, GLASS, AND DRUG FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING THALLIUM IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE HAIR LOSS, CHANGES IN THEIR BLOOD, OR PROBLEMS WITH THEIR KIDNEYS, INTESTINES, OR LIVER.
LEAD AND COPPER RULE						
LEAD (PPB)	AL=0.015	1000	AL=15 (TT)	ZERO	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS; EROSION OF NATURAL DEPOSITS	INFANTS AND CHILDREN WHO DRINK WATER CONTAINING LEAD IN EXCESS OF THE ACTION LEVEL COULD EXPERIENCE DELAYS IN THEIR PHYSICAL OR MENTAL DEVELOPMENT. CHILDREN COULD SHOW SLIGHT DEFICITS IN ATTENTION SPAN AND LEARNING ABILITIES. ADULTS WHO DRINK THIS WATER OVER MANY YEARS COULD DEVELOP KIDNEY PROBLEMS OR HIGH BLOOD PRESSURE.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
COPPER (PPM)	AL=1.3	NO CONVERSION NECESSARY	AL=1.3 (TT)	1.3	CORROSION OF HOUSEHOLD PLUMBING SYSTEMS; EROSION OF NATURAL DEPOSITS; LEACHING FROM WOOD PRESERVATIVES	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.
SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES AND HERBICIDES						
2,4-D (PPB)	0.07	1000	70	70	RUNOFF FROM HERBICIDE USED ON ROW CROPS	SOME PEOPLE WHO DRINK WATER CONTAINING THE WEED KILLER 2,4-D WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR KIDNEYS, LIVER, OR ADRENAL GLANDS.
2,4,5-TP [SILVEX] (PPB)	0.05	1000	50	50	RESIDUE OF BANNED HERBICIDE	SOME PEOPLE WHO DRINK WATER CONTAINING SILVEX IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE LIVER PROBLEMS.
ALACHLOR (PPB)	0.002	1000	2	ZERO	RUNOFF FROM HERBICIDE USED ON ROW CROPS	SOME PEOPLE WHO DRINK WATER CONTAINING ALACHLOR IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR EYES, LIVER, KIDNEYS, OR SPLEEN, OR EXPERIENCE ANEMIA, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
ATRAZINE (PPB)	0.003	1000	3	3	RUNOFF FROM HERBICIDE USED ON ROW CROPS	SOME PEOPLE WHO DRINK WATER CONTAINING ATRAZINE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR CARDIOVASCULAR SYSTEM OR REPRODUCTIVE DIFFICULTIES.
BENZO(A)PYRENE [PAHS] (PPT)	0.0002	1,000,000	200	ZERO	LEACHING FROM LININGS OF WATER STORAGE TANKS AND DISTRIBUTION LINES	SOME PEOPLE WHO DRINK WATER CONTAINING BENZO(A)PYRENE IN EXCESS OF THE MCL OVER MANY YEARS MAY EXPERIENCE REPRODUCTIVE DIFFICULTIES AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
CARBOFURAN (PPB)	0.04	1000	40	40	LEACHING OF SOIL FUMIGANT USED ON RICE AND ALFALFA	SOME PEOPLE WHO DRINK WATER CONTAINING CARBOFURAN IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR BLOOD, OR NERVOUS OR REPRODUCTIVE SYSTEMS.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
CHLORDANE (PPB)	0.002	1000	2	ZERO	RESIDUE OF BANNED TERMITICIDE	SOME PEOPLE WHO DRINK WATER CONTAINING CHLORDANE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER OR NERVOUS SYSTEM, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
DALAPON (PPB)	0.2	1000	200	200	RUNOFF FROM HERBICIDE USED ON RIGHTS OF WAY	SOME PEOPLE WHO DRINK WATER CONTAINING DALAPON WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE MINOR KIDNEY CHANGES.
DI(2-ETHYLHEXYL) ADIPATE (PPB)	0.4	1000	400	400	DISCHARGE FROM CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING DI (2-ETHYLHEXYL) ADIPATE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE GENERAL TOXIC EFFECTS OR REPRODUCTIVE DIFFICULTIES.
DI(2-ETHYLHEXYL) PHTHALATE (PPB)	0.006	1000	6	ZERO	DISCHARGE FROM RUBBER AND CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING DI (2-ETHYLHEXYL) PHTHALATE IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE PROBLEMS WITH THEIR LIVER, OR EXPERIENCE REPRODUCTIVE DIFFICULTIES, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
DIBROMOCHLOROPROPANE [DBCP] (PPT)	0.0002	1,000,000	200	ZERO	RUNOFF/LEACHING FROM SOIL FUMIGANT USED ON SOYBEANS, COTTON, PINEAPPLES, AND ORCHARDS	SOME PEOPLE WHO DRINK WATER CONTAINING DBCP IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE REPRODUCTIVE DIFFICULTIES AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
DINOSEB (PPB)	0.007	1000	7	7	RUNOFF FROM HERBICIDE USED ON SOYBEANS AND VEGETABLES	SOME PEOPLE WHO DRINK WATER CONTAINING DINOSEB WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE REPRODUCTIVE DIFFICULTIES.
DIOXIN [2,3,7,8-TCDD] (PPQ)	0.00000003	1,000,000,000	30	ZERO	EMISSIONS FROM WASTE INCINERATION AND OTHER COMBUSTION; DISCHARGE FROM CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING DIOXIN IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE REPRODUCTIVE DIFFICULTIES AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
DIQUAT (PPB)	0.02	1000	20	20	RUNOFF FROM HERBICIDE USE	SOME PEOPLE WHO DRINK WATER CONTAINING DIQUAT IN EXCESS OF THE MCL OVER MANY YEARS COULD GET CATARACTS.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
ENDOTHALL (PPB)	0.1	1000	100	100	RUNOFF FROM HERBICIDE USE	SOME PEOPLE WHO DRINK WATER CONTAINING ENDOTHALL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR STOMACH OR INTESTINES.
ENDRIN (PPB)	0.002	1000	2	2	RESIDUE OF BANNED INSECTICIDE	SOME PEOPLE WHO DRINK WATER CONTAINING ENDRIN IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE LIVER PROBLEMS.
ETHYLENE DIBROMIDE (PPT)	0.00005	1,000,000	50	ZERO	DISCHARGE FROM PETROLEUM REFINERIES	SOME PEOPLE WHO DRINK WATER CONTAINING ETHYLENE DIBROMIDE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER, STOMACH, REPRODUCTIVE SYSTEM, OR KIDNEYS, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
GLYPHOSATE (PPB)	0.7	1000	700	700	RUNOFF FROM HERBICIDE USE	SOME PEOPLE WHO DRINK WATER CONTAINING GLYPHOSATE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR KIDNEYS OR REPRODUCTIVE DIFFICULTIES.
HEPTACHLOR (PPT)	0.0004	1,000,000	400	ZERO	RESIDUE OF BANNED PESTICIDE	SOME PEOPLE WHO DRINK WATER CONTAINING HEPTACHLOR IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE LIVER DAMAGE AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
HEPTACHLOR EPOXIDE (PPT)	0.0002	1,000,000	200	ZERO	BREAKDOWN OF HEPTACHLOR	SOME PEOPLE WHO DRINK WATER CONTAINING HEPTACHLOR EPOXIDE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE LIVER DAMAGE, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
HEXACHLOROBENZENE (PPB)	0.001	1000	1	ZERO	DISCHARGE FROM METAL REFINERIES AND AGRICULTURAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING HEXACHLOROBENZENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER OR KIDNEYS, OR ADVERSE REPRODUCTIVE EFFECTS, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
HEXACHLOROCYCLOPENTADIENE (PPB)	0.05	1000	50	50	DISCHARGE FROM CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING HEXACHLOROCYCLOPENTADIENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR KIDNEYS OR STOMACH.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
LINDANE (PPT)	0.0002	1,000,000	200	200	RUNOFF/LEACHING FROM INSECTICIDE USED ON CATTLE, LUMBER, GARDENS	SOME PEOPLE WHO DRINK WATER CONTAINING LINDANE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR KIDNEYS OR LIVER.
METHOXYCHLOR (PPB)	0.04	1000	40	40	RUNOFF/LEACHING FROM INSECTICIDE USED ON FRUITS, VEGETABLES, ALFALFA, LIVESTOCK	SOME PEOPLE WHO DRINK WATER CONTAINING METHOXYCHLOR IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE REPRODUCTIVE DIFFICULTIES.
OXAMYL [VYDATE] (PPB)	0.2	1000	200	200	RUNOFF/LEACHING FROM INSECTICIDE USED ON APPLES, POTATOES AND TOMATOES	SOME PEOPLE WHO DRINK WATER CONTAINING OXAMYL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE SLIGHT NERVOUS SYSTEM EFFECTS.
PENTACHLOROPHENOL (PPB)	0.001	1000	1	ZERO	DISCHARGE FROM WOOD PRESERVING FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING PENTACHLOROPHENOL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER OR KIDNEYS, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
PICLORAM (PPB)	0.5	1000	500	500	HERBICIDE RUNOFF	SOME PEOPLE WHO DRINK WATER CONTAINING PICLORAM IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER.
POLYCHLORINATED BIPHENYLS [PCBS] (PPT)	0.0005	1,000,000	500	ZERO	RUNOFF FROM LANDFILLS; DISCHARGE OF WASTE CHEMICALS	SOME PEOPLE WHO DRINK WATER CONTAINING PCBS IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE CHANGES IN THEIR SKIN, PROBLEMS WITH THEIR THYMUS GLAND, IMMUNE DEFICIENCIES, OR REPRODUCTIVE OR NERVOUS SYSTEM DIFFICULTIES, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
SIMAZINE (PPB)	0.004	1000	4	4	HERBICIDE RUNOFF	SOME PEOPLE WHO DRINK WATER CONTAINING SIMAZINE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR BLOOD.
TOXAPHENE (PPB)	0.003	1000	3	ZERO	RUNOFF/LEACHING FROM INSECTICIDE USED ON COTTON AND CATTLE	SOME PEOPLE WHO DRINK WATER CONTAINING TOXAPHENE IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR KIDNEYS, LIVER, OR THYROID, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
VOLATILE ORGANIC CONTAMINANTS						

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
BENZENE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM FACTORIES; LEACHING FROM GAS STORAGE TANKS AND LANDFILLS	SOME PEOPLE WHO DRINK WATER CONTAINING BENZENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE ANEMIA OR A DECREASE IN BLOOD PLATELETS, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
CARBON TETRACHLORIDE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM CHEMICAL PLANTS AND OTHER INDUSTRIAL ACTIVITIES	SOME PEOPLE WHO DRINK WATER CONTAINING CARBON TETRACHLORIDE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
CHLOROBENZENE (PPB)	0.1	1000	100	100	DISCHARGE FROM CHEMICAL AND AGRICULTURAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING CHLOROBENZENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER OR KIDNEYS.
O-DICHLOROBENZENE (PPB)	0.6	1000	600	600	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING O-DICHLOROBENZENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER, KIDNEYS, OR CIRCULATORY SYSTEMS.
P-DICHLOROBENZENE (PPB)	0.075	1000	75	75	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING P-DICHLOROBENZENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE ANEMIA, DAMAGE TO THEIR LIVER, KIDNEYS, OR SPLEEN, OR CHANGES IN THEIR BLOOD.
1,2-DICHLOROETHANE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,2-DICHLOROETHANE IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
1,1-DICHLOROETHYLENE (PPB)	0.007	1000	7	7	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,1-DICHLOROETHYLENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER.
CIS-1,2-DICHLOROETHYLENE (PPB)	0.07	1000	70	70	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING CIS-1,2-DICHLOROETHYLENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER.
TRANS-1,2-DICHLOROETHYLENE (PPB)	0.1	1000	100	100	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING TRANS-1,2-DICHLOROETHYLENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
DICHLOROMETHANE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM PHARMACEUTICAL AND CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING DICHLOROMETHANE IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE LIVER PROBLEMS AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
1,2-DICHLOROPROPANE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,2-DICHLOROPROPANE IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
ETHYLBENZENE (PPB)	0.7	1000	700	700	DISCHARGE FROM PETROLEUM REFINERIES	SOME PEOPLE WHO DRINK WATER CONTAINING ETHYLBENZENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER OR KIDNEYS.
STYRENE (PPB)	0.1	1000	100	100	DISCHARGE FROM RUBBER AND PLASTIC FACTORIES; LEACHING FROM LANDFILLS	SOME PEOPLE WHO DRINK WATER CONTAINING STYRENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR LIVER, KIDNEYS, OR CIRCULATORY SYSTEM.
TETRACHLORO-ETHYLENE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM FACTORIES AND DRY CLEANERS	SOME PEOPLE WHO DRINK WATER CONTAINING TETRACHLOROETHYLENE IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR LIVER, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
TOLUENE (PPM)	1	NO CONVERSION NECESSARY	1	1	DISCHARGE FROM PETROLEUM FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING TOLUENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR NERVOUS SYSTEM, KIDNEYS, OR LIVER.
1,2,4-TRICHLOROBENZENE (PPB)	0.07	1000	70	70	DISCHARGE FROM TEXTILE-FINISHING FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,2,4-TRICHLOROBENZENE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE CHANGES IN THEIR ADRENAL GLANDS.
1,1,1-TRICHLOROETHANE (PPB)	0.2	1000	200	200	DISCHARGE FROM METAL DEGREASING SITES AND OTHER FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,1,1-TRICHLOROETHANE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER, NERVOUS SYSTEM, OR CIRCULATORY SYSTEM.
1,1,2-TRICHLOROETHANE (PPB)	0.005	1000	5	3	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING 1,1,2-TRICHLOROETHANE WELL IN EXCESS OF THE MCL OVER MANY YEARS COULD HAVE PROBLEMS WITH THEIR LIVER, KIDNEYS, OR IMMUNE SYSTEMS.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
TRICHLOROETHYLENE (PPB)	0.005	1000	5	ZERO	DISCHARGE FROM METAL DEGREASING SITES AND OTHER FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING TRICHLOROETHYLENE IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE PROBLEMS WITH THEIR LIVER AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.
VINYL CHLORIDE (PPB)	0.002	1000	2	ZERO	LEACHING FROM PVC PIPING; DISCHARGE FROM PLASTICS FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING VINYL CHLORIDE IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
XYLENES [TOTAL] (PPM)	10	NO CONVERSION NECESSARY	10	10	DISCHARGE FROM PETROLEUM FACTORIES; DISCHARGE FROM CHEMICAL FACTORIES	SOME PEOPLE WHO DRINK WATER CONTAINING XYLENES IN EXCESS OF THE MCL OVER MANY YEARS COULD EXPERIENCE DAMAGE TO THEIR NERVOUS SYSTEM.
RADIOACTIVE CONTAMINANTS						
BETA/PHOTON EMITTERS (MREM/YR)	4	NO CONVERSION NECESSARY	4	ZERO	DECAY OF NATURAL AND MAN-MADE DEPOSITS	CERTAIN MINERALS ARE RADIOACTIVE AND MAY EMIT FORMS OF RADIATION KNOWN AS PHOTONS AND BETA RADIATION. SOME PEOPLE WHO DRINK WATER CONTAINING BETA PARTICLE AND PHOTON RADIOACTIVITY IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
ALPHA EMITTERS [GROSS ALPHA] (PCI/L)	15	NO CONVERSION NECESSARY	15	ZERO	EROSION OF NATURAL DEPOSITS	CERTAIN MINERALS ARE RADIOACTIVE AND MAY EMIT A FORM OF RADIATION KNOWN AS ALPHA RADIATION. SOME PEOPLE WHO DRINK WATER CONTAINING ALPHA EMITTERS IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
COMBINED RADIUM (PCI/L)	5	NO CONVERSION NECESSARY	5	ZERO	EROSION OF NATURAL DEPOSITS	SOME PEOPLE WHO DRINK WATER CONTAINING RADIUM 226 OR 228 IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
DISINFECTION BYPRODUCTS (DBPS), 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 (DBPS). THE DEPARTMENT SETS STANDARDS FOR CONTROLLING THE LEVELS OF DISINFECTANTS AND DBPS IN DRINKING WATER, INCLUDING TRIHALOMETHANES (THMS) AND HALOACETIC ACIDS (HAAS). SEE R 325.10610, R 325.10610a, AND R 325.10719e FOR DISINFECTION BYPRODUCT MCLS, DISINFECTANT MRDLS, AND RELATED MONITORING REQUIREMENTS.						
TOTAL TRIHALOMETHANES [TTHMS] (PPB)	0.10/ 0.080*	1000	100/80*	N/A	BY-PRODUCT OF DRINKING WATER CHLORINATION	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.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
	** THE MCL FOR TOTAL TRIHALOMETHANES IS THE SUM OF THE CONCENTRATIONS OF THE INDIVIDUAL TRIHALOMETHANES. DIFFERENT MCLS FOR TTHMS APPLY TO DIFFERENT TYPES OF SYSTEMS. SEE THE FOOTNOTE IN R 325.10610(1).*					
HALOACETIC ACIDS (HAAS) (PPB)	0.060*	1000	60*	N/A	BY-PRODUCT OF DRINKING WATER DISINFECTION	SOME PEOPLE WHO DRINK WATER CONTAINING HALOACETIC ACIDS IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
	** THE MCL FOR HALOACETIC ACIDS IS THE SUM OF THE CONCENTRATIONS OF THE INDIVIDUAL HALOACETIC ACIDS.*					
BROMATE (PPB)	0.010	1000	10	ZERO	BY-PRODUCT OF DRINKING WATER CHLORINATION	SOME PEOPLE WHO DRINK WATER CONTAINING BROMATE IN EXCESS OF THE MCL OVER MANY YEARS MAY HAVE AN INCREASED RISK OF GETTING CANCER.
CHLORAMINES (PPM)	MRDL = 4	NO CONVERSION NECESSARY	MRDL = 4	MRDLG = 4	WATER ADDITIVE USED TO CONTROL MICROBES	SOME PEOPLE WHO USE WATER CONTAINING CHLORAMINES WELL IN EXCESS OF THE MRDL COULD EXPERIENCE IRRITATING EFFECTS TO THEIR EYES AND NOSE. SOME PEOPLE WHO DRINK WATER CONTAINING CHLORAMINES WELL IN EXCESS OF THE MRDL COULD EXPERIENCE STOMACH DISCOMFORT OR ANEMIA.
CHLORINE (PPM)	MRDL = 4	NO CONVERSION NECESSARY	MRDL = 4	MRDLG = 4	WATER ADDITIVE USED TO CONTROL MICROBES	SOME PEOPLE WHO USE WATER CONTAINING CHLORINE WELL IN EXCESS OF THE MRDL COULD EXPERIENCE IRRITATING EFFECTS TO THEIR EYES AND NOSE. SOME PEOPLE WHO DRINK WATER CONTAINING CHLORINE WELL IN EXCESS OF THE MRDL COULD EXPERIENCE STOMACH DISCOMFORT.
CHLORITE (PPM)	1	NO CONVERSION NECESSARY	1	0.8	BY-PRODUCT OF DRINKING WATER CHLORINATION	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.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
CHLORINE DIOXIDE (PPB)	MRDL = 0.8	1000	MRDL = 800	MRDLG = 800	WATER ADDITIVE USED TO CONTROL MICROBES	SOME INFANTS AND YOUNG CHILDREN WHO DRINK WATER CONTAINING CHLORINE DIOXIDE IN EXCESS OF THE MRDL COULD EXPERIENCE NERVOUS SYSTEM EFFECTS. SIMILAR EFFECTS MAY OCCUR IN FETUSES OF PREGNANT WOMEN WHO DRINK WATER CONTAINING CHLORINE DIOXIDE IN EXCESS OF THE MRDL. SOME PEOPLE MAY EXPERIENCE ANEMIA.
	ADD THE FOLLOWING ONLY TO PUBLIC NOTIFICATION WHERE ANY 2 CONSECUTIVE DAILY SAMPLES TAKEN AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM ARE ABOVE THE MRDL: "THE CHLORINE DIOXIDE VIOLATIONS REPORTED TODAY ARE THE RESULT OF EXCEEDANCES AT THE TREATMENT FACILITY ONLY, NOT WITHIN THE DISTRIBUTION SYSTEM WHICH DELIVERS WATER TO CONSUMERS. CONTINUED COMPLIANCE WITH CHLORINE DIOXIDE LEVELS WITHIN THE DISTRIBUTION SYSTEM MINIMIZES THE POTENTIAL RISK OF THESE VIOLATIONS TO CONSUMERS." ADD THE FOLLOWING ONLY TO PUBLIC NOTIFICATION WHERE ONE OR MORE DISTRIBUTION SYSTEM SAMPLES ARE ABOVE THE MRDL: "THE CHLORINE DIOXIDE VIOLATIONS REPORTED TODAY INCLUDE EXCEEDANCES OF THE DRINKING WATER STANDARD WITHIN THE DISTRIBUTION SYSTEM WHICH DELIVERS WATER TO CONSUMERS. VIOLATIONS OF THE CHLORINE DIOXIDE STANDARD WITHIN THE DISTRIBUTION SYSTEM MAY HARM HUMAN HEALTH BASED ON SHORT-TERM EXPOSURES. CERTAIN GROUPS, INCLUDING FETUSES, INFANTS, AND YOUNG CHILDREN, MAY BE ESPECIALLY SUSCEPTIBLE TO NERVOUS SYSTEM EFFECTS FROM EXCESSIVE CHLORINE DIOXIDE EXPOSURE."					
TOTAL ORGANIC CARBON [TOC - CONTROL OF DBP PRECURSORS] (PPM)	TT	NO CONVERSION NECESSARY	TT	NONE	NATURALLY PRESENT IN THE ENVIRONMENT	TOTAL ORGANIC CARBON (TOC) HAS NO HEALTH EFFECTS. HOWEVER, TOTAL ORGANIC CARBON PROVIDES A MEDIUM FOR THE FORMATION OF DISINFECTION BYPRODUCTS. THESE BYPRODUCTS INCLUDE TRIHALOMETHANES (THMS) AND HALOACETIC ACIDS (HAAS). DRINKING WATER CONTAINING THESE BYPRODUCTS IN EXCESS OF THE MCL MAY LEAD TO ADVERSE HEALTH EFFECTS, LIVER OR KIDNEY PROBLEMS, OR NERVOUS SYSTEM EFFECTS, AND MAY LEAD TO AN INCREASED RISK OF GETTING CANCER.
OTHER TREATMENT TECHNIQUES						
ACRYLAMIDE	TT	NO CONVERSION NECESSARY	TT	ZERO	ADDED TO WATER DURING SEWAGE/ WASTEWATER TREATMENT	SOME PEOPLE WHO DRINK WATER CONTAINING HIGH LEVELS OF ACRYLAMIDE OVER A LONG PERIOD OF TIME COULD HAVE PROBLEMS WITH THEIR NERVOUS SYSTEM OR BLOOD, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.

CONTAMINANT (UNITS)	TRADITIONAL MCL IN MG/L	TO CONVERT FOR CCR, MULTIPLY BY	MCL IN CCR UNITS	MCLG	MAJOR SOURCES IN DRINKING WATER	HEALTH EFFECTS LANGUAGE
EPICHLOROHYDRIN	TT	NO CONVERSION NECESSARY	TT	ZERO	DISCHARGE FROM INDUSTRIAL CHEMICAL FACTORIES; AN IMPURITY OF SOME WATER TREATMENT CHEMICALS	SOME PEOPLE WHO DRINK WATER CONTAINING HIGH LEVELS OF EPICHLOROHYDRIN OVER A LONG PERIOD OF TIME COULD EXPERIENCE STOMACH PROBLEMS, AND MAY HAVE AN INCREASED RISK OF GETTING CANCER.

R 325.10406 ~~Notice to new customers.~~ NOTICE TO NEW BILLING UNITS OR NEW CUSTOMERS.

Rule 406. ~~For community public water supplies, the supplier of water shall give a copy of the most recent public notice for any uncorrected violation of a state drinking water standard or for failure to comply with any variance or exemption schedule to all new billing units or new hookups before or at the time service begins.~~(1) SUPPLIERS OF COMMUNITY WATER SYSTEMS SHALL GIVE A COPY OF THE MOST RECENT PUBLIC NOTICE FOR CONTINUING VIOLATIONS, THE EXISTENCE OF A VARIANCE OR EXEMPTION, OR OTHER ONGOING SITUATIONS REQUIRING A PUBLIC NOTICE TO ALL NEW BILLING UNITS OR NEW CUSTOMERS BEFORE OR AT THE TIME SERVICE BEGINS.

(2) SUPPLIERS OF NONCOMMUNITY WATER SYSTEMS SHALL CONTINUOUSLY POST THE PUBLIC NOTICE IN CONSPICUOUS LOCATIONS IN ORDER TO INFORM NEW CONSUMERS OF CONTINUING VIOLATIONS, VARIANCE OR EXEMPTION, OR OTHER SITUATION REQUIRING A PUBLIC NOTICE FOR AS LONG AS THE VIOLATION, VARIANCE, EXEMPTION, OR OTHER SITUATION EXISTS.

R 325.10407 ~~Notices regarding unregulated contaminants.~~ SPECIAL NOTICE OF THE AVAILABILITY OF UNREGULATED CONTAMINANT MONITORING RESULTS.

Rule 407. ~~Special reporting and public notice requirements apply to those suppliers of water that are required to monitor for unregulated contaminants pursuant to the provisions of R 325.10717(b). The suppliers of water shall notify persons who are served by the system of the availability of results of sampling that is conducted pursuant to the provisions of R 325.10717(b) by including a notice in the first set of water bills issued by the supplier of water after receipt of the results or written notice or newspaper notice within 3 months after receipt of results. The notice shall identify a person and telephone number to contact for information about the monitoring results. Where appropriate, the department may publish the monitoring results or the availability of the results on behalf of a water supplier or group of water suppliers in a manner intended to reasonably inform persons who are served by the water supply.~~(1) THE SUPPLIER OF A COMMUNITY WATER SYSTEM OR NONTRANSIENT, NONCOMMUNITY WATER SYSTEM REQUIRED TO MONITOR UNDER R 325.10717b(1) SHALL NOTIFY PERSONS SERVED BY THE SYSTEM OF THE AVAILABILITY OF THE RESULTS OF SUCH SAMPLING NOT LATER THAN 12 MONTHS AFTER THE MONITORING RESULTS ARE KNOWN.

(2) THE FORM AND MANNER OF THE PUBLIC NOTICE SHALL FOLLOW THE REQUIREMENTS FOR A TIER 3 PUBLIC NOTICE UNDER R 325.10404(3), (4)(a) AND (c). THE NOTICE SHALL ALSO IDENTIFY A PERSON AND PROVIDE THE TELEPHONE NUMBER TO CONTACT FOR INFORMATION ON THE MONITORING RESULTS.

R 325.10408 Periodic progress reports; correction of violations and notification of customers.

Rule 408. The department may require a~~n owner~~ A SUPPLIER of a public water ~~supply~~SYSTEM to submit periodic reports on progress being made to correct a violation of an MCL, order, or a variance or exemption, and to notify the ~~customers or users of the public water supply~~PERSONS SERVED BY THE SYSTEM of that progress.

R 325.10408a SPECIAL NOTICE WHEN FLUORIDE LEVEL IS ABOVE 2 MG/L.

RULE 408a. (1) SUPPLIERS OF COMMUNITY WATER SYSTEMS THAT MEASURE FLUORIDE ABOVE 2 MG/L AS DETERMINED BY THE LAST SINGLE SAMPLE TAKEN UNDER R 325.10710,

BUT DO NOT EXCEED THE MAXIMUM CONTAMINANT LEVEL (MCL) OF 4 MG/L FOR FLUORIDE UNDER R 325.10604c, SHALL PROVIDE THE PUBLIC NOTICE IN SUBRULE (3) OF THIS RULE TO PERSONS SERVED. PUBLIC NOTICE SHALL BE PROVIDED AS SOON AS PRACTICAL BUT NOT LATER THAN THAT OF A TIER 3 PUBLIC NOTICE UNDER R 325.10404(2)(a). A COPY OF THE NOTICE SHALL ALSO BE SENT TO ALL NEW BILLING UNITS AND NEW CUSTOMERS UNDER R 325.10406(1) AND TO THE LOCAL HEALTH DEPARTMENT. THE DEPARTMENT MAY, ON A CASE-BY-CASE BASIS, IN THE BEST INTEREST OF HEALTH, SAFETY, WELFARE, AND THE ENVIRONMENT, REQUIRE AN INITIAL NOTICE SOONER OR APPLICABLE REPEAT NOTICES MORE FREQUENTLY THAN THAT SPECIFIED IN R 325.10404(2).

(2) THE FORM AND MANNER OF THE PUBLIC NOTICE, INCLUDING REPEAT NOTICES, SHALL FOLLOW THE REQUIREMENTS FOR A TIER 3 PUBLIC NOTICE IN R 325.10404(3) AND (4)(a) AND (4)(c).

(3) THE NOTICE SHALL CONTAIN THE FOLLOWING LANGUAGE, INCLUDING THE LANGUAGE NECESSARY TO FILL IN THE BLANKS:

"THIS IS AN ALERT ABOUT YOUR DRINKING WATER AND A COSMETIC DENTAL PROBLEM THAT MIGHT AFFECT CHILDREN UNDER 9 YEARS OF AGE. AT LOW LEVELS, FLUORIDE CAN HELP PREVENT CAVITIES, BUT CHILDREN DRINKING WATER CONTAINING MORE THAN 2 MILLIGRAMS PER LITER (MG/L) OF FLUORIDE MAY DEVELOP COSMETIC DISCOLORATION OF THEIR PERMANENT TEETH (DENTAL FLUOROSIS). THE DRINKING WATER PROVIDED BY YOUR COMMUNITY WATER SYSTEM [NAME] HAS A FLUORIDE CONCENTRATION OF [INSERT VALUE] MG/L.

DENTAL FLUOROSIS, IN ITS MODERATE OR SEVERE FORMS, MAY RESULT IN A BROWN STAINING AND/OR PITTING OF THE PERMANENT TEETH. THIS PROBLEM OCCURS ONLY IN DEVELOPING TEETH, BEFORE THEY ERUPT FROM THE GUMS. CHILDREN UNDER 9 SHOULD BE PROVIDED WITH ALTERNATIVE SOURCES OF DRINKING WATER OR WATER THAT HAS BEEN TREATED TO REMOVE THE FLUORIDE TO AVOID THE POSSIBILITY OF STAINING AND PITTING OF THEIR PERMANENT TEETH. YOU MAY ALSO WANT TO CONTACT YOUR DENTIST ABOUT PROPER USE BY YOUNG CHILDREN OF FLUORIDE-CONTAINING PRODUCTS. OLDER CHILDREN AND ADULTS MAY SAFELY DRINK THE WATER.

DRINKING WATER CONTAINING MORE THAN 4 MG/L OF FLUORIDE (THE U.S. ENVIRONMENTAL PROTECTION AGENCY'S DRINKING WATER STANDARD) CAN INCREASE YOUR RISK OF DEVELOPING BONE DISEASE. YOUR DRINKING WATER DOES NOT CONTAIN MORE THAN 4 MG/L OF FLUORIDE, BUT WE’RE REQUIRED TO NOTIFY YOU WHEN WE DISCOVER THAT THE FLUORIDE LEVELS IN YOUR DRINKING WATER EXCEED 2 MG/L BECAUSE OF THIS COSMETIC DENTAL PROBLEM.

FOR MORE INFORMATION, PLEASE CALL [NAME OF WATER SYSTEM CONTACT] OF [NAME OF COMMUNITY WATER SYSTEM] AT [PHONE NUMBER]. SOME HOME WATER TREATMENT UNITS ARE ALSO AVAILABLE TO REMOVE FLUORIDE FROM DRINKING WATER. TO LEARN MORE ABOUT AVAILABLE HOME WATER TREATMENT UNITS, YOU MAY CALL NSF INTERNATIONAL AT 1-877-8-NSF-HELP."

R 325.10408b SPECIAL NOTICE FOR NITRATE EXCEEDANCES ABOVE MCL BY NONCOMMUNITY WATER SYSTEMS (NCWS), WHEN GRANTED PERMISSION BY THE DEPARTMENT.

RULE 408b. (1) THE SUPPLIER OF A NONCOMMUNITY WATER SYSTEM GRANTED PERMISSION BY THE DEPARTMENT UNDER R 325.10604c(6) TO EXCEED THE NITRATE MCL SHALL PROVIDE NOTICE TO PERSONS SERVED ACCORDING TO THE REQUIREMENTS FOR A TIER 1 NOTICE UNDER R 325.10402(1) AND (2).
(2) NONCOMMUNITY WATER SYSTEMS GRANTED PERMISSION BY THE DEPARTMENT TO EXCEED THE NITRATE MCL UNDER R 325.10604c(6) SHALL PROVIDE CONTINUOUS POSTING OF THE FACT THAT NITRATE LEVELS EXCEED 10 MG/L AND THE POTENTIAL HEALTH EFFECTS OF EXPOSURE, ACCORDING TO THE REQUIREMENTS FOR TIER 1 NOTICE DELIVERY UNDER R 325.10402(3) AND THE CONTENT REQUIREMENTS UNDER R 325.10405.

R 325.10409 ~~Failure of owner to provide adequate public notice.~~ NOTICE BY DEPARTMENT ON BEHALF OF THE PUBLIC WATER SYSTEM.
Rule 409. ~~If deemed necessary by the department, when an owner of a public water supply fails to provide adequate public notice within the required time period, the department may do so~~(1) THE DEPARTMENT MAY GIVE THE NOTICE REQUIRED BY THIS PART ON BEHALF OF THE SUPPLIER OF THE PUBLIC WATER SYSTEM IF THE DEPARTMENT COMPLIES WITH THE REQUIREMENTS OF THIS PART and may charge costs incurred by the department to the owner of the public water supply. ~~Action taken by the department pursuant to this rule shall not provide immunity to an owner of a public water supply from the remedies and penalties prescribed by the act.~~
(2) THE SUPPLIER OF THE PUBLIC WATER SYSTEM SHALL ENSURE THAT THE REQUIREMENTS OF THIS PART ARE MET.

R 325.10411 Annual consumer confidence reporting; purpose and applicability.
Rule 411. (1) R 325.10411 to R 325.10415 establish the minimum requirements for the content, recordkeeping, and delivery of annual consumer confidence reports that SUPPLIERS OF community ~~supplies~~WATER SYSTEMS shall prepare and deliver to their customers. These reports shall contain information on the quality of the water delivered by the supplieRs and characterize the risks, if any, from exposure to contaminants detected in the drinking water in an accurate and understandable manner.
(2) R 325.10411 to R 325.10415 apply only to community supplies.
(3) For the purpose of R 325.10411 to R 325.10415, "report" means annual consumer confidence report.
(4) For the purpose of R 325.10411 to R 325.10415, "customers" are defined as billing units or service connections to which water is delivered by THE SUPPLIER OF a community ~~supply~~WATER SYSTEM.
(5) For the purpose of R 325.10411 to R 325.10420, "detected" means at or above the levels prescribed by R 325.10605.

R 325.10412 Annual consumer confidence reporting; effective dates.
Rule 412. (1) THE SUPPLIER OF ~~E~~Each existing community ~~supply~~WATER SYSTEM shall deliver its report by July 1 annually. Each report shall contain data collected during, or before, the previous calendar year.
(2) THE SUPPLIER OF ~~A~~A new community ~~supply~~WATER SYSTEM shall deliver its first report by July 1 of the year after its first full calendar year in operation and then by July 1 annually.
(3) THE SUPPLIER OF ~~A~~A community ~~supply~~WATER SYSTEM that sells water to another community ~~supply~~WATER SYSTEM shall deliver the applicable information required in R 325.10413 to the buyer ~~supply~~SYSTEM by either of the following dates:
(a) April 1 annually.

(b) A date mutually agreed upon by the seller and the purchaser, and specifically included in a contract between the parties.

R 325.10413 Annual consumer confidence reporting; content of reports.

Rule 413. (1) THE SUPPLIER OF ~~E~~Each community ~~supply~~WATER SYSTEM 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 ~~supply~~WATER SYSTEM 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 ~~community supply~~SUPPLIER has received a source water assessment from the department, then the report shall include a brief summary of the ~~supply's~~SYSTEM'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 ~~supply~~WATER SYSTEM 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 ~~a~~ REGULATED contaminantS ~~for which EPA has set a treatment technique or an action level shall include one or both of the following definitions as applicable~~USING ANY OF THE FOLLOWING TERMS SHALL INCLUDE THE APPLICABLE DEFINITIONS:

(a) "Treatment technique" or "TT" means a required process intended to reduce the level of a contaminant in drinking water.

(b) "Action level" or "AL" means the concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water supply shall follow.

(c) "MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL" OR "MRDLG" MEANS THE LEVEL OF A DRINKING WATER DISINFECTANT BELOW WHICH THERE IS NO KNOWN OR EXPECTED RISK TO HEALTH. MRDLGS DO NOT REFLECT THE BENEFITS OF THE USE OF DISINFECTANTS TO CONTROL MICROBIAL CONTAMINANTS.

(d) "MAXIMUM RESIDUAL DISINFECTANT LEVEL" OR "MRDL" MEANS THE HIGHEST LEVEL OF A DISINFECTANT ALLOWED IN DRINKING WATER. THERE IS CONVINCING EVIDENCE THAT ADDITION OF A DISINFECTANT IS NECESSARY FOR CONTROL OF MICROBIAL CONTAMINANTS.

(7) The report shall include ALL OF the following information on detected contaminants subject to mandatory monitoring, except Cryptosporidium~~.~~:

(a) This subrule applies to all of the following contaminants:

(i) Contaminants subject to an MCL, action level, MAXIMUM RESIDUAL DISINFECTANT LEVEL, or treatment technique known as regulated contaminants.

(ii) Contaminants for which monitoring is required by R 325.10717b(1) known as unregulated contaminants.

(iii) Disinfection by-products or microbial contaminants for which monitoring is required by 40 C.F.R. ~~part 141,~~ §§141.142 and 141.143, except as provided under subrule (8)(a) of this rule, and which are detected in the finished water.
(b) The data relating to the contaminants specified in this subrule shall be displayed in 1 table or in several adjacent tables. Any additional monitoring results that a community supply chooses to include in its report shall be displayed separately.
(c) The data shall be derived from data collected to comply with EPA and state monitoring and analytical requirements during the previous calendar year with the following exceptions:
(i) If a ~~community supply~~SUPPLIER 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. ~~part 141,~~ §§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 ~~4.1~~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 ~~4.1~~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 ~~and/~~or action level, OR BOTH, as appropriate, and specified in subrule (6) of this rule.
(iv) For contaminants subject to an MCL, except turbidity and total coliforms, the table shall indicate the highest contaminant level used to determine compliance with a ~~national primary~~ drinking water ~~regulation (NPDWR)~~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.
(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.

~~TABLE 4.1; Converting MCL Compliance Values for Consumer Confidence Reports~~

~~Key:~~
~~AL=Action Level~~
~~MCL=Maximum Contaminant Level~~
~~MCLG=Maximum Contaminant Level Goal~~
~~MFL=million fibers per liter~~
~~mrem/year=millirems per year (a measure of radiation absorbed by the body)~~
~~NTU=Nephelometric Turbidity Units~~
~~pCi/l=picocuries per liter (a measure of radioactivity)~~

~~ppm=parts per million, or milligrams per liter (mg/l)~~
~~ppb=parts per billion, or micrograms per liter (µg/l)~~
~~ppt=parts per trillion, or nanograms per liter~~
~~ppq=parts per quadrillion, or picograms per liter~~
~~TT=Treatment Technique~~

~~Contaminant~~	~~MCL in Compliance Units (mg/L)~~	~~Multiply By…~~	~~MCL in CCR Units~~	~~MCLG in CCR Units~~
~~Microbiological Contaminants~~				
~~1.Total coliform bacteria~~			~~(Supplies that collect 40 or more samples per month) 5% of monthly samples are positive; (supplies that collect fewer than 40 samples per month) 1 positive monthly sample.~~	~~0~~
~~2.Fecal coliform and E. coli~~			~~A routine sample and a repeat sample are total coliform positive, and 1 is also fecal coliform or E. coli positive.~~	~~0~~
~~3. Turbidity~~			~~TT (NTU)~~	~~n/a~~
~~Radioactive Contaminants~~				
~~4. Beta/photon emitters~~	~~4 mrem/yr~~		~~4 mrem/yr~~	~~0~~
~~5. Alpha emitters~~	~~15 pCi/l~~		~~15 pCi/l~~	~~0~~
~~6. Combined radium~~	~~5 pCi/l~~		~~5 pCi/l~~	~~0~~
~~Inorganic contaminants~~				
~~7. Antimony~~	~~.006~~	~~1000~~	~~6 ppb~~	~~6~~
~~8. Arsenic~~	~~.05~~	~~1000~~	~~50 ppb~~	~~n/a~~
~~9. Asbestos~~	~~7 MFL~~		~~7 MFL~~	~~7~~
~~10. Barium~~	~~2~~		~~2 ppm~~	~~2~~
~~11. Beryllium~~	~~.004~~	~~1000~~	~~4 ppb~~	~~4~~
~~12. Cadmium~~	~~.005~~	~~1000~~	~~5 ppb~~	~~5~~
~~13. Chromium~~	~~.1~~	~~1000~~	~~100 ppb~~	~~100~~
~~14. Copper~~	~~AL=1.3~~		~~AL=1.3 ppm~~	~~1.3~~
~~15. Cyanide~~	~~.2~~	~~1000~~	~~200 ppb~~	~~200~~
~~16. Fluoride~~	~~4~~		~~4 ppm~~	~~4~~
~~17. Lead~~	~~AL=.015~~	~~1000~~	~~AL=15 ppb~~	~~0~~
~~18. Mercury (inorganic)~~	~~.002~~	~~1000~~	~~2 ppb~~	~~2~~
~~19. Nitrate (as Nitrogen)~~	~~10~~		~~10 ppm~~	~~10~~
~~20. Nitrite (as Nitrogen)~~	~~1~~		~~1 ppm~~	~~1~~
~~21. Selenium~~	~~.05~~	~~1000~~	~~50 ppb~~	~~50~~
~~22. Thallium~~	~~.002~~	~~1000~~	~~2 ppb~~	~~.5~~
~~Synthetic Organic Contaminants Including Pesticides and Herbicides~~				
~~23. 2,4-D~~	~~.07~~	~~1000~~	~~70 ppb~~	~~70~~
~~24. 2,4,5-TP (Silvex)~~	~~.05~~	~~1000~~	~~50 ppb~~	~~50~~
~~25. Acrylamide~~			~~TT~~	~~0~~

~~Contaminant~~	~~MCL in Compliance Units (mg/L)~~	~~Multiply By…~~	~~MCL in CCR Units~~	~~MCLG in CCR Units~~
~~26. Alachlor~~	~~.002~~	~~1000~~	~~2 ppb~~	~~0~~
~~27. Atrazine~~	~~.003~~	~~1000~~	~~3 ppb~~	~~3~~
~~28. Benzo(a)pyrene (PAH)~~	~~.0002~~	~~1,000,000~~	~~200 ppt~~	~~0~~
~~29. Carbofuran~~	~~.04~~	~~1000~~	~~40 ppb~~	~~40~~
~~30. Chlordane~~	~~.002~~	~~1000~~	~~2 ppb~~	~~0~~
~~31. Dalapon~~	~~.2~~	~~1000~~	~~200 ppb~~	~~200~~
~~32. Di(2-ethylhexyl)adipate~~	~~.4~~	~~1000~~	~~400 ppb~~	~~400~~
~~33. Di(2-ethylhexyl)phthalate~~	~~.006~~	~~1000~~	~~6 ppb~~	~~0~~
~~34. Dibromochloropropane~~	~~.0002~~	~~1,000,000~~	~~200 ppt~~	~~0~~
~~35. Dinoseb~~	~~.007~~	~~1000~~	~~7 ppb~~	~~7~~
~~36. Diquat~~	~~.02~~	~~1000~~	~~20 ppb~~	~~20~~
~~37. Dioxin (2,3,7,8-TCDD)~~	~~.00000003~~	~~1,000,000,000~~	~~30 ppq~~	~~0~~
~~38. Endothall~~	~~.1~~	~~1000~~	~~100 ppb~~	~~100~~
~~39. Endrin~~	~~.002~~	~~1000~~	~~2 ppb~~	~~2~~
~~40. Epichlorohydrin~~			~~TT~~	~~0~~
~~41. Ethylene dibromide~~	~~.00005~~	~~1,000,000~~	~~50 ppt~~	~~0~~
~~42. Glyphosate~~	~~.7~~	~~1000~~	~~700 ppb~~	~~700~~
~~43. Heptachlor~~	~~.0004~~	~~1,000,000~~	~~400 ppt~~	~~0~~
~~44. Heptachlor epoxide~~	~~.0002~~	~~1,000,000~~	~~200 ppt~~	~~0~~
~~45. Hexachlorobenzene~~	~~.001~~	~~1000~~	~~1 ppb~~	~~0~~
~~46. Hexachloro-cyclopentadiene~~	~~.05~~	~~1000~~	~~50 ppb~~	~~50~~
~~47. Lindane~~	~~.0002~~	~~1,000,000~~	~~200 ppt~~	~~200~~
~~48. Methoxychlor~~	~~.04~~	~~1000~~	~~40 ppb~~	~~40~~
~~49. Oxamyl (Vydate)~~	~~.2~~	~~1000~~	~~200 ppb~~	~~200~~
~~50. PCBs (Polychlorinated biphenyls)~~	~~.0005~~	~~1,000,000~~	~~500 ppt~~	~~0~~
~~51. Pentachlorophenol~~	~~.001~~	~~1000~~	~~1 ppb~~	~~0~~
~~52. Picloram~~	~~.5~~	~~1000~~	~~500 ppb~~	~~500~~
~~53. Simazine~~	~~.004~~	~~1000~~	~~4 ppb~~	~~4~~
~~54. Toxaphene~~	~~.003~~	~~1000~~	~~3 ppb~~	~~0~~
~~Volatile Organic Contaminants~~				
~~55. Benzene~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~56. Carbon tetrachloride~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~57. Chlorobenzene~~	~~.1~~	~~1000~~	~~100 ppb~~	~~100~~
~~58. o-Dichlorobenzene~~	~~.6~~	~~1000~~	~~600 ppb~~	~~600~~
~~59. p-Dichlorobenzene~~	~~.075~~	~~1000~~	~~75 ppb~~	~~75~~
~~60. 1,2-Dichloroethane~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~61. 1,1-Dichloroethylene~~	~~.007~~	~~1000~~	~~7 ppb~~	~~7~~
~~62. cis-1,2-Dichloroethylene~~	~~.07~~	~~1000~~	~~70 ppb~~	~~70~~
~~63. trans-1,2-Dichloroethylene~~	~~.1~~	~~1000~~	~~100 ppb~~	~~100~~
~~64. Dichloromethane~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~65. 1,2-Dichloropropane~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~66. Ethylbenzene~~	~~.7~~	~~1000~~	~~700 ppb~~	~~700~~
~~67. Styrene~~	~~.1~~	~~1000~~	~~100 ppb~~	~~100~~
~~68. Tetrachloroethylene~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~69. 1,2,4-Trichlorobenzene~~	~~.07~~	~~1000~~	~~70 ppb~~	~~70~~
~~70. 1,1,1-Trichloroethane~~	~~.2~~	~~1000~~	~~200 ppb~~	~~200~~
~~71. 1,1,2-Trichloroethane~~	~~.005~~	~~1000~~	~~5 ppb~~	~~3~~

~~Contaminant~~	~~MCL in Compliance Units (mg/L)~~	~~Multiply By…~~	~~MCL in CCR Units~~	~~MCLG in CCR Units~~
~~72. Trichloroethylene~~	~~.005~~	~~1000~~	~~5 ppb~~	~~0~~
~~73. Tthms (Total trihalmethanes)~~	~~.10~~	~~1000~~	~~100 ppb~~	~~n/a~~
~~74. Toluene~~	~~1~~		~~1 ppm~~	~~1~~
~~75. Vinyl Chloride~~	~~.002~~	~~1000~~	~~2 ppb~~	~~0~~
~~76. Xylenes~~	~~10~~		~~10 ppm~~	~~10~~

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 ~~4.1~~ 1 OF R 325.10405 ~~of this rule~~.

(v) For turbidity reported pursuant to R 325.10720 and ~~R 325.11004~~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 may include an explanation of the reasons for measuring turbidity.

(vi) For lead and copper, the table shall indicate the ~~90~~NINETIEth percentile value of the most recent round of sampling and the number of sampling sites exceeding the action level.

(vii) For total coliform, the table shall indicate either of the following:

(A) The highest monthly number of positive samples for supplies collecting fewer than 40 samples per month.

(B) The highest monthly percentage of positive samples for supplies collecting not less than 40 samples per month.

(viii) For fecal coliform, the table shall indicate the total number of positive samples.

(ix) The table shall indicate the likely source or sources of detected contaminants to the best of the ~~supply's~~SUPPLIER'S knowledge. Specific information regarding contaminants may be available in sanitary surveys and source water assessments and the supp~~ly~~IER shall use the information when it is available. If the supp~~ly~~IER lacks specific information on the likely source, then the report shall include ~~one~~1 or more of the typical sources for that contaminant listed in table ~~4.2~~ 1 OF R 325.10405 that are most applicable to the community ~~supply~~WATER SYSTEM.

~~TABLE 4.2 Regulated Contaminants~~

~~Key: AL=Action Level~~
~~MCL=Maximum Contaminant Level~~
~~MCLG=Maximum Contaminant Level Goal~~
~~MFL=million fibers per liter~~
~~mrem/year=millirems per year (a measure of radiation absorbed by the body)~~
~~NTU=Nephelometric Turbidity Units~~
~~pCi/l=picocuries per liter (a measure of radioactivity)~~
~~ppm=parts per million, or milligrams per liter (mg/l)~~
~~ppb=parts per billion, or micrograms per liter (µg/l)~~
~~ppt=parts per trillion, or nanograms per liter~~
~~ppq=parts per quadrillion, or picograms per liter~~
~~TT=Treatment Technique~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~Microbiological Contaminants~~				
~~1. Total coliform bacteria~~	~~0~~	~~(Supplies that collect 40 or more samples per month) 5% of monthly samples are positive; (Supplies that collect fewer than 40 samples per month) 1 positive monthly sample.~~	~~Naturally present in the environment.~~	~~Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.~~
~~2. Fecal coliform and E. coli~~	~~0~~	~~A routine sample and a repeat sample are total coliform positive, and 1 is also fecal coliform or E. coli positive.~~	~~Human and animal fecal waste.~~	~~Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.~~
~~3. Turbidty~~	~~N/a~~	~~TT~~	~~Soil runoff.~~	~~Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.~~
~~Radioactive Contaminants~~				
~~4. Beta/photon emitters (mrem/yr)~~	~~0~~	~~4~~	~~Decay of natural and man-made deposits.~~	~~Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~5. Alpha emitters (pCi/l)~~	~~0~~	~~15~~	~~Erosion of natural deposits.~~	~~Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~6. Combined radium (pCi/l)~~	~~0~~	~~5~~	~~Erosion of natural deposits.~~	~~Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~Inorganic Contaminants~~				

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~7. Antimony (ppb)~~	~~6~~	~~6~~	~~Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.~~	~~Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.~~
~~8. Arsenic (ppb)~~	~~N/a~~	~~50~~	~~Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.~~	~~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.~~
~~9. Asbestos (MFL)~~	~~7~~	~~7~~	~~Decay of asbestos cement water mains; erosion of natural deposits.~~	~~Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.~~
~~10. Barium (ppm)~~	~~2~~	~~2~~	~~Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.~~	~~Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.~~
~~11. Beryllium (ppb)~~	~~4~~	~~4~~	~~Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.~~	~~Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.~~
~~12. Cadmium (ppb)~~	~~5~~	~~5~~	~~Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.~~	~~Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.~~
~~13. Chromium (ppb)~~	~~100~~	~~100~~	~~Discharge from steel and pulp mills; erosion of natural deposits.~~	~~Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.~~
~~14. Copper (ppm)~~	~~1.3~~	~~AL=1.3~~	~~Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.~~	~~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 are encouraged to consult their personal doctor.~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~15. Cyanide (ppb)~~	~~200~~	~~200~~	~~Discharge from steel/metal factories; discharge from plastic and fertilizer factories.~~	~~Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.~~
~~16. Fluoride (ppm)~~	~~4~~	~~4~~	~~Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.~~	~~Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Children may get mottled teeth.~~
~~17. Lead (ppb)~~	~~0~~	~~AL=15~~	~~Corrosion of household plumbing systems; erosion of natural deposits.~~	~~Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.~~
~~18. Mercury [inorganic] (ppb)~~	~~2~~	~~2~~	~~Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.~~	~~Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.~~
~~19. Nitrate [as Nitrogen] (ppm)~~	~~10~~	~~10~~	~~Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.~~	~~Infants below the age of six 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.~~
~~20. Nitrite [as Nitrogen] (ppm)~~	~~1~~	~~1~~	~~Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.~~	~~Infants below the age of six 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.~~
~~21. Selenium (ppb)~~	~~50~~	~~50~~	~~Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines.~~	~~Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.~~
~~22. Thallium (ppb)~~	~~0.5~~	~~2~~	~~Leaching from ore-processing sites; discharge from electronics, glass, and drug factories.~~	~~Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.~~
~~Synthetic Organic Contaminants including Pesticides and Herbicides~~				

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~23. 2,4-D (ppb)~~	~~70~~	~~70~~	~~Runoff from herbicide used on row crops.~~	~~Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.~~
~~24. 2,4,5-TP [Silvex] (ppb)~~	~~50~~	~~50~~	~~Residue of banned herbicide.~~	~~Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.~~
~~25. Acrylamide~~	~~0~~	~~TT~~	~~Added to water during sewage/ wastewater treatment.~~	~~Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.~~
~~26. Alachlor (ppb)~~	~~0~~	~~2~~	~~Runoff from herbicide used on row crops.~~	~~Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.~~
~~27. Atrazine (ppb)~~	~~3~~	~~3~~	~~Runoff from herbicide used on row crops.~~	~~Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.~~
~~28. Benzo(a)pyrene [PAH] (nanograms/l)~~	~~0~~	~~200~~	~~Leaching from linings of water storage tanks and distribution lines.~~	~~Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.~~
~~29. Carbofuran (ppb)~~	~~40~~	~~40~~	~~Leaching of soil fumigant used on rice and alfalfa.~~	~~Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.~~
~~30. Chlordane (ppb)~~	~~0~~	~~2~~	~~Residue of banned termiticide.~~	~~Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may have an increased risk of getting cancer.~~
~~31. Dalapon (ppb)~~	~~200~~	~~200~~	~~Runoff from herbicide used on rights of way.~~	~~Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.~~
~~32. Di(2-ethylhexyl) adipate (ppb)~~	~~400~~	~~400~~	~~Discharge from chemical factories.~~	~~Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience general toxic effects or reproductive difficulties.~~
~~33. Di(2-ethylhexyl) phthalate (ppb)~~	~~0~~	~~6~~	~~Discharge from rubber and chemical factories.~~	~~Some people who drink water containing di (2-ethylhexyl) phthalate 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.~~
~~34. Dibromochloro-propane (DBCP) (ppt)~~	~~0~~	~~200~~	~~Runoff/ leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.~~	~~Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~35. Dinoseb (ppb)~~	~~7~~	~~7~~	~~Runoff from herbicide used on soybeans and vegetables.~~	~~Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.~~
~~36. Diquat (ppb)~~	~~20~~	~~20~~	~~Runoff from herbicide use.~~	~~Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.~~
~~37. Dioxin [2,3,7,8-TCDD] (ppq)~~	~~0~~	~~30~~	~~Emissions from waste incineration and other combustion; discharge from chemical factories.~~	~~Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.~~
~~38. Endothall (ppb)~~	~~100~~	~~100~~	~~Runoff from herbicide use.~~	~~Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.~~
~~39. Endrin (ppb)~~	~~2~~	~~2~~	~~Residue of banned insecticide.~~	~~Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.~~
~~40. Epichlorohydrin~~	~~0~~	~~TT~~	~~Discharge from industrial chemical factories; an impurity of some water treatment chemicals.~~	~~Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.~~
~~41. Ethylene dibromide (ppt)~~	~~0~~	~~50~~	~~Discharge from petroleum refineries.~~	~~Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.~~
~~42. Glyphosate (ppb)~~	~~700~~	~~700~~	~~Runoff from herbicide use.~~	~~Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.~~
~~43. Heptachlor (ppt)~~	~~0~~	~~400~~	~~Residue of banned pesticide.~~	~~Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.~~
~~44. Heptachlor epoxide (ppt)~~	~~0~~	~~200~~	~~Breakdown of heptachlor.~~	~~Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.~~
~~45. Hexachloro-benzene (ppb)~~	~~0~~	~~1~~	~~Discharge from metal refineries and agricultural chemical factories.~~	~~Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.~~
~~46. Hexachloro-cyclopentadiene (ppb)~~	~~50~~	~~50~~	~~Discharge from chemical factories.~~	~~Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~47. Lindane (ppt)~~	~~200~~	~~200~~	~~Runoff/ leaching from insecticide used on cattle, lumber, gardens.~~	~~Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.~~
~~48. Methoxychlor (ppb)~~	~~40~~	~~40~~	~~Runoff/ leaching from insecticide used on fruits, vegetables alfalfa, livestock~~	~~Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.~~
~~49. Oxamyl [Vydate] (ppb)~~	~~200~~	~~200~~	~~Runoff/ leaching from insecticide used on apples, potatoes, and tomatoes.~~	~~Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.~~
~~50. PCBs [Poly-chlorinated biphenyls] (ppt)~~	~~0~~	~~500~~	~~Runoff from landfills; discharge of waste chemicals.~~	~~Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.~~
~~51. Pentachloro-phenol (ppb)~~	~~0~~	~~1~~	~~Discharge from wood preserving factories.~~	~~Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.~~
~~52. Picloram (ppb)~~	~~500~~	~~500~~	~~Herbicide runoff.~~	~~Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.~~
~~53. Simazine (ppb)~~	~~4~~	~~4~~	~~Herbicide runoff.~~	~~Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.~~
~~54. Toxaphene (ppb)~~	~~0~~	~~3~~	~~Runoff/ leaching from insecticide used on cotton and cattle.~~	~~Some people who drink water containing toxaphene in excess of the MCL over many years could experience problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.~~
~~Volatile organic compounds~~				
~~55. Benzene (ppb)~~	~~0~~	~~5~~	~~Discharge from factories; leaching from gas storage tanks and landfills.~~	~~Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.~~
~~56. Carbon tetrachloride (ppb)~~	~~0~~	~~5~~	~~Discharge from chemical plants and other industrial activities.~~	~~Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.~~
~~57. Chlorobenzene (ppb)~~	~~100~~	~~100~~	~~Discharge from chemical and agricultural chemical factories.~~	~~Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~58. o-Dichlorobenzene (ppb)~~	~~600~~	~~600~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing o-dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.~~
~~59. p-Dichlorobenzene (ppb)~~	~~75~~	~~75~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing p-dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.~~
~~60. 1,2-Dichloroethane (ppb)~~	~~0~~	~~5~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~61. 1,1-Dichloroethylene (ppb)~~	~~7~~	~~7~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.~~
~~62. cis-1,2-Dichloroethylene (ppb)~~	~~70~~	~~70~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing cis-1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.~~
~~63. trans-1,2-Dichloroethylene (ppb)~~	~~100~~	~~100~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing trans-1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.~~
~~64. Dichloromethane (ppb)~~	~~0~~	~~5~~	~~Discharge from pharmaceutical and chemical factories.~~	~~Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.~~
~~65. 1,2-Dichloropropane (ppb)~~	~~0~~	~~5~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~66. Ethylbenzene (ppb)~~	~~700~~	~~700~~	~~Discharge from petroleum refineries.~~	~~Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.~~
~~67. Styrene (ppb)~~	~~100~~	~~100~~	~~Discharge from rubber and plastic factories; leaching from landfills.~~	~~Some people who drink water containing styrene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory system.~~
~~68. Tetrachloroethylene (ppb)~~	~~0~~	~~5~~	~~Discharge from factories and dry cleaners.~~	~~Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.~~
~~69. 1,2,4-Trichlorobenzene (ppb)~~	~~70~~	~~70~~	~~Discharge from textile-finishing factories.~~	~~Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.~~
~~70. 1,1,1-Trichloroethane (ppb)~~	~~200~~	~~200~~	~~Discharge from metal degreasing sites and other factories.~~	~~Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.~~
~~71. 1,1,2-Trichloroethane (ppb)~~	~~3~~	~~5~~	~~Discharge from industrial chemical factories.~~	~~Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could experience problems with their liver, kidneys, or immune systems.~~

~~Contaminant (Units)~~	~~MCLG~~	~~MCL~~	~~Major Sources in Drinking Water~~	~~Health Effects Language~~
~~72. Trichloro-ethylene (ppb)~~	~~0~~	~~5~~	~~Discharge from metal degreasing sites and other factories.~~	~~Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.~~
~~73. Tthms [Total trihalomethanes] (ppb)~~	~~N/a~~	~~100~~	~~By-product of drinking water chlorination.~~	~~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 systems, and may have an increased risk of getting cancer.~~
~~74. Toluene (ppb)~~	~~1~~	~~1~~	~~Discharge by petroleum factories.~~	~~Some people who drink water containing toluene well in excess of the MCL over many years could experience problems with their nervous system, kidneys, or liver.~~
~~75. Vinyl Chloride (ppb)~~	~~0~~	~~2~~	~~Leaching from PVC piping; discharge from plastics factories.~~	~~Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.~~
~~76. Xylenes (ppm)~~	~~10~~	~~10~~	~~Discharge from petroleum factories; discharge from chemical factories.~~	~~Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.~~

(e) If a community ~~supply~~WATER SYSTEM 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 ~~supply~~SYSTEM. Alternatively, supplieRs 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 supp~~ly~~IER to address the violation. The supp~~ly~~IER shall use the relevant language in table ~~4.2~~ 1 OF R 325.10405 to describe the potential health effects.

(g) For detected unregulated contaminants for which monitoring is required, except Cryptosporidium, the table or tables shall contain the average and range at which the contaminant was detected. The report may include a brief explanation of the reasons for monitoring for unregulated contaminants.

(8) ALL OF the following information shall be included on Cryptosporidium, radon, and other contaminants:

(a) If the supp~~ly~~IER has performed any monitoring for Cryptosporidium, including monitoring performed to satisfy the requirements of 40 C.F.R. ~~part 141,~~ §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 supp~~ly~~IER has performed additional monitoring which indicates the presence of other contaminants in the finished water, then the supp~~ly~~IER is encouraged to report any results that may indicate a health concern. To determine if results may indicate a health concern, the supp~~ly~~IER may determine if EPA has proposed ~~a~~n

~~NPDWR~~NATIONAL PRIMARY DRINKING WATER REGULATION or issued a health advisory for that contaminant by calling the safe drinking water hotline (800-426-4791). EPA considers detectIONs above a proposed MCL or health advisory level to indicate possible health concerns. For such contaminants, the report may include both of the following:
(i) The results of the monitoring.
(ii) An explanation of the significance of the results noting the existence of a health advisory or a proposed regulation.
(d) LEVELS OF SODIUM MONITORED UNDER R 325.10717b(2) DURING THE YEAR COVERED BY THE REPORT.
(9) For compliance with ~~NPDWR~~ 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 ~~40 C.F.R. part 141, subpart H~~R 325.10611, R 325.10611a, AND R 325.10611b, supplieRs 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 ~~40 C.F.R. part 141, subpart I, supplies which~~R 325.10604f, SUPPLIERS THAT fail to take one 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 ~~4.2~~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, supplieRs that violate the requirements of R 325.10604e shall include the relevant language from table ~~4.2~~1 OF R 325.10405 in the report.
(e) Recordkeeping of compliance data.
(f) Special monitoring requirements prescribed by R 325.10717b.
(g) Violation of the terms of a variance, an exemption, or an administrative or judicial order.
(10) For variances and exemptions, if a ~~supply~~SYSTEM is operating under the terms of a variance or an exemption issued under section 20 of the act, then the report shall contain all of the following information:
(a) An explanation of the reasons for the variance or exemption.
(b) The date on which the variance or exemption was issued.
(c) A brief status report on the steps the supply is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption.
(d) A notice of any opportunity for public input in the review, or renewal, of the variance or exemption.
(11) The report shall include ALL OF the following additional information:
(a) A brief explanation regarding contaminants which may reasonably be expected to be found in drinking water including bottled water. The explanation may include the language of ~~subdivision (a)~~PARAGRAPH (i) through (iii) of this ~~subrule~~SUBDIVISION or supplieRs may use their own comparable language. The report also shall include the language of ~~subdivision (a)~~PARAGRAPH (iv) of this ~~subrule~~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 include~~d~~ING 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) ~~In order t~~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 ~~supply~~ WATER SYSTEM as a source of additional information concerning the report.
(c) In communities ~~with greater~~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 supp~~ly~~IER 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 supplieRs that may affect the quality of the water; for example, time and place of regularly scheduled board meetings.
(e) The supp~~ly~~IER may include such additional information as it determines necessary for public education consistent with, and not detracting from, the purpose of the report.

R 325.10414 Annual consumer confidence reporting; required additional health information.
Rule 414. (1) All reports shall prominently display the following language: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people may seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)."
(2) A supply that detects arsenic at levels above ~~25 mg/l, but below the MCL~~0.005 MG/L AND UP TO AND INCLUDING 0.01 MG/L shall do either of the following:
(a) Include in its report a short informational statement about arsenic, using language, such as, ~~"EPA is reviewing the current drinking water standard of 50 mg/l (50 ppb) for arsenic. A recent study conducted by the National Academy of Sciences suggests that the current standard may not be stringent enough. Arsenic contamination~~

~~can be caused by erosion of natural deposits, runoff from orchards and runoff from glass and electronics production wastes. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.~~"WHILE YOUR DRINKING WATER MEETS EPA'S STANDARD FOR ARSENIC, IT DOES CONTAIN LOW LEVELS OF ARSENIC. EPA'S STANDARD BALANCES THE CURRENT UNDERSTANDING OF ARSENIC'S POSSIBLE HEALTH EFFECTS AGAINST THE COSTS OF REMOVING ARSENIC FROM DRINKING WATER. EPA CONTINUES TO RESEARCH THE HEALTH EFFECTS OF LOW LEVELS OF ARSENIC, WHICH IS A MINERAL KNOWN TO CAUSE CANCER IN HUMANS AT HIGH CONCENTRATIONS AND IS LINKED TO OTHER HEALTH EFFECTS SUCH AS SKIN DAMAGE AND CIRCULATORY PROBLEMS."

(b) Write its own educational statement, but only in consultation with the department.

(3) A supply that detects nitrate at levels above 5 mg/l, but below the MCL shall do either of the following:

(a) Include a short informational statement about the impacts of nitrate on children using language, such as, "Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you are encouraged to ask advice from your health care provider."

(b) Write its own educational statement, but only in consultation with the department.

(4) Supplies that detect lead above the action level in more than 5%, and up to and including 10%, of homes sampled shall do either of the following:

(a) Include a short informational statement about the special impact of lead on children using language, such as, "Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)."

(b) Write its own educational statement, but only in consultation with the department.

(5) Community water supplies that detect total trihalomethanes above 0.080 mg/l, but below the MCL in R 325.10604a, as an annual average, monitored and calculated under ~~the provisions of~~R 325.10719a, R 325.10719b, and R 325.10719c, shall include health effects language prescribed by table ~~4.2~~ 1 OF R 325.10405.

(6) BEGINNING IN THE REPORT DUE BY JULY 1, 2002 AND ENDING JANUARY 22, 2006, A SUPPLIER OF A COMMUNITY WATER SYSTEM THAT DETECTS ARSENIC ABOVE 0.01 MG/L AND UP TO AND INCLUDING 0.05 MG/L SHALL INCLUDE THE ARSENIC HEALTH EFFECTS LANGUAGE PRESCRIBED BY TABLE 1 OF R 325.10405.

R 325.10415 Annual consumer confidence reporting; report delivery and recordkeeping.

Rule 415. (1) Except as provided in subrule (7) of this rule, each SUPPLIER OF A community ~~supply~~ WATER SYSTEM shall mail or otherwise directly deliver ~~one~~1 copy of the report to each customer.

(2) The supp~~ly~~IER shall make a good faith effort to reach consumers who do not get water bills, using means recommended by the department. The department expects that an adequate good faith effort will be tailored to the consumers who are served by the supply but are not bill-paying customers such as renters or workers. A good faith effort to reach consumers may include, but not be limited to, a mix of any of the following methods appropriate to the particular supply:

(a) Posting the report on the Internet.

(b) Mailing to postal patrons in metropolitan areas.

(c) Advertising the availability of the report in the news media.
(d) Publication in a local newspaper.
(e) Posting in public places such as cafeterias or lunch rooms of public buildings.
(f) Delivery of multiple copies for distribution by single-biller customers such as apartment buildings or large private employers.
(g) Delivery to community organizations.
(3) Not later than the date the supply is required to distribute the report to its customers, each SUPPLIER OF A community ~~supply~~WATER SYSTEM shall mail a copy of the report to the department, followed within 3 months by a certification that the report has been distributed to customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the department.
(4) Not later than the date the supp~~ly~~IER is required to distribute the report to its customers, each SUPPLIER OF A community ~~supply~~WATER SYSTEM shall deliver the report to the local health department ~~with~~THAT HAS jurisdiction in the county in which the ~~supply~~SYSTEM is located. If the ~~supply's~~SYSTEM'S service area is located in more than ~~one~~1 county, then the report shall be delivered to all appropriate local health departments. In addition, each SUPPLIER OF A community ~~supply~~WATER SYSTEM shall deliver the report to any other agency or clearinghouse identified in writing by the department.
(5) Each SUPPLIER OF A community ~~supply~~WATER SYSTEM shall make its report available to the public upon request.
(6) Each SUPPLIER OF A community ~~supply~~WATER SYSTEM serving 100,000 or more persons shall post its current year's report to a publicly accessible site on the Internet.
(7) The governor or his or her designee, for the purposes of waiving the mailing requirement, may waive the requirement of subrule (1) of this rule for community water supplies serving fewer than 10,000 persons.
(a) SupplieRs OF SYSTEMS serving fewer than 10,000 persons that elect to use the waiver shall do all the following:
(i) Publish the report in ~~one~~1 or more local newspapers serving the area in which the supply is located.
(ii) Inform the customers that the report will not be mailed, either in the newspapers in which the report is published or by other means approved by the department.
(iii) Make the report available to the public upon request.
(b) SupplieRs OF SYSTEMS serving 500 or fewer persons that elect to use the waiver may forego the requirements of subdivision (a)~~(i) and (ii)~~ of this subrule if they provide notice at least once per year to their customers by mail, door-to-door delivery, or by posting in an appropriate location that the report is available upon request.
(8) A SUPPLIER OF A~~ny supply~~ SYSTEM subject to R 325.10411 to R 325.10415 shall retain copies of its consumer confidence report for not less than ~~5~~3 years.

R 325.10416 Annual water quality reporting; child care centers and K-12 schools classified as nontransient noncommunity water ~~supplies~~SYSTEMS.
Rule 416. (1) R 325.10416 to R 325.10419 apply only to the following nontransient noncommunity water ~~supplies~~SYSTEMS:
(a) Child care centers classified as nontransient noncommunity water ~~supplies~~SYSTEMS.
(b) K-12 schools classified as nontransient noncommunity water ~~supplies~~SYSTEMS.
(2) R 325.10418 establishes the minimum requirements for the content of annual water quality reports that shall be available to consumers and to the parents or legal guardians of students or children less than 18 years of age.

R 325.10417 Annual water quality reporting; effective dates.

Rule 417. (1) Each SUPPLIER OF AN existing nontransient noncommunity water ~~supply~~SYSTEM that is also a child care center or K-12 school shall make available its ~~first annual water quality report by October 1, 2001 and subsequent~~annual water quality reports by October 1 annually.
(2) A SUPPLIER OF A new nontransient noncommunity water ~~supply~~SYSTEM that is also a child care center or K-12 school shall make available its first annual water quality report by October 1 of the year after its first full calendar year in operation and then by October 1 annually.

R 325.10418 Annual water quality reporting; content of reports.
Rule 418. (1) Each SUPPLIER OF A nontransient noncommunity water ~~supply~~SYSTEM that is also a child care center or K-12 school shall prepare an annual water quality report that contains either a summary of compliance monitoring data for the previous calendar year or copies of the laboratory reports for all compliance monitoring performed in the previous calendar year.
(2) The first annual water quality report after completion of a source water assessment by the department shall include a notification that the source water assessment has been completed and that a copy of the source water assessment is available upon request.

R 325.10419 Annual water quality reporting; report delivery and recordkeeping.
Rule 419. (1) Each SUPPLIER OF A nontransient noncommunity water ~~supply~~ SYSTEM that is also a child care center or K-12 school shall post, for ~~at least~~NOT LESS THAN 30 days, a statement instructing interested parties that the annual water quality report is available upon request.
(2) A~~ny~~ supp~~ly~~IER OF A SYSTEM subject to this rule shall retain copies of its annual water quality report and the notice of availability for not less than ~~5~~3 years.

R 325.10420 Annual water quality reporting; contaminants for vulnerable subpopulation.
Rule 420. Pursuant to section 14 of the act, if any contaminants listed in table ~~4.3~~1 OF THIS RULE are detected above a level of concern as indicated in table ~~4.3~~1 OF THIS RULE, then the consumer confidence report or the annual water quality report may include a description of the potential health effects and the vulnerable subpopulation that may be susceptible to the level of contaminant detected using the relevant language provided in table ~~4.2~~1 OF R 325.10405.

TABLE ~~4.3~~ 1 Contaminants For Vulnerable Subpopulation Reporting

Contaminant	Susceptible Vulnerable Subpopulation	Level Of Concern
Fecal coliform/ E. coli	Infants, young children, THE ELDERLY, and people with severely compromised immune systems.	Confirmed presence (any confirmed detect)
Copper	People with Wilson's disease.	1.3 mg/l (ppm)
Fluoride	Children.	4.0 mg/l (ppm)
Lead	Infants and children.	15.0 µg/l (ppb)
Nitrate	Infants below the age of ~~six~~ 6 months.	10.0 mg/l (ppm)
Nitrite	Infants below the age of ~~six~~ 6 months.	1.0 mg/l (ppm)

PROPOSED ADMINISTRATIVE RULES

ORR # 2002-022

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019, and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.10604a and R 325.605 of the Michigan Administrative Code are amended, and R 325.610, R 325.610a, R 325.610b, R 325.610c, R 325.611, R 325.611a, and R 325.611b are added to the Code as follows:

PART 6. STATE DRINKING WATER STANDARDS AND ANALYTICAL TECHNIQUES

R 325.10604a ~~MCL for total trihalomethanes.~~ DISINFECTION FOR PHOSPHATE OR IRON REMOVAL TREATMENT SYSTEMS.

Rule 604a. ~~The MCL for total trihalomethane for all type I public water supplies that add a disinfectant to the water as a normal part of the treatment system shall be 0.10 milligrams per liter.~~ DISINFECTION SHALL BE PROVIDED FOR PUBLIC WATER SUPPLIES THAT EMPLOY PHOSPHATE TREATMENT SYSTEMS OR CERTAIN IRON REMOVAL TREATMENT SYSTEMS.

R 325.10605 Analytical techniques and sample collection procedures; ~~incorporation~~ ADOPTION by reference.

Rule 605. The analytical techniques and sample collection procedures used in the determination of compliance with the STATE drinking water standards for microbiological contaminants, inorganic chemical contaminants, organic chemical contaminants, including maximum TTHM potential, turbidity, residual disinfectants, DISINFECTION BYPRODUCTS, DISINFECTION BYPRODUCT PRECURSORS, temperature, pH, conductivity, alkalinity, and radioactivity which are contained in 40 C.F.R. parts 141 and 143, (2001, 2000, 1999~~, 1995~~), and which have been promulgated by the United States EPA under authority of the safe drinking water act of 1974 (public law 93-523), the safe drinking water act amendments of 1986 (public law 99-339), and the safe drinking water act amendments of 1996 (public law 104-182), 42 U.S.C. 300F et seq. are adopted by reference in these rules. ~~Copies of the adopted matter are available for inspection at the offices of the department at 3423 North Martin Luther King Jr. Blvd., Lansing. Copies of the adopted material may be obtained from the Superintendent of Documents, United States Government Printing Office, Post Office~~

~~Box 371954, Pittsburgh, PA 15250-7954, telephone (202) 512-1800, or the Department of Environmental Quality, Drinking Water and Radiological Protection Division, Post Office Box 30630, Lansing, Michigan 48909-8130. The cost as of the time of adoption of these rules is $37.00. The adopted material is also available at http://www.access.gpo.gov/su_docs.~~ THE ADOPTED MATERIAL IS AVAILABLE FROM THE SUPERINTENDENT OF DOCUMENTS AT THE ADDRESS IN R 325.10116(2) FOR A COST OF $56.00 AT THE TIME OF ADOPTION OF THESE RULES. THE ADOPTED MATERIAL IS AVAILABLE FOR INSPECTION, OR COPIES ARE AVAILABLE AT NO COST FROM THE OFFICES OF THE DEPARTMENT AT THE ADDRESS IN R 325.10116(a).

R 325.10610 MCLS FOR DISINFECTION BYPRODUCTS.

RULE 610. (1) THE MAXIMUM CONTAMINANT LEVELS (MCLS) FOR DISINFECTION BYPRODUCTS ARE AS FOLLOWS:

DISINFECTION BYPRODUCT	MCL (MG/L)
TOTAL TRIHALOMETHANES (TTHM)	0.080/0.10 *
HALOACETIC ACIDS (FIVE) (HAA5)	0.060
BROMATE	0.010
CHLORITE	1.0

* THE MCL OF 0.080 MG/L FOR TTHM IS EFFECTIVE JANUARY 1, 2002, FOR SUBPART H SYSTEMS SERVING 10,000 OR MORE PEOPLE. THE MCL OF 0.10 MG/L FOR TTHM IS IN EFFECT UNTIL JANUARY 1, 2004, FOR ALL OTHER COMMUNITY WATER SYSTEMS THAT ADD A DISINFECTANT TO THE WATER AS A NORMAL PART OF THE TREATMENT PROCESS. COMPLIANCE WITH THE 0.10 MG/L TTHM MCL SHALL BE DETERMINED BASED ON A RUNNING ANNUAL AVERAGE OF QUARTERLY SAMPLES COLLECTED UNDER R 325.10719b OR R 325.10719c(1). BEGINNING JANUARY 1, 2004, THE MCL WILL BE 0.080 MG/L FOR SYSTEMS SUBJECT TO THIS RULE AND THE COMPLIANCE REQUIREMENTS WILL BE ACCORDING TO R 325.10610b. BEGINNING JANUARY 1, 2004, THE TOTAL TRIHALOMETHANES MCL OF 0.10 MG/L AND THIS FOOTNOTE WILL NO LONGER APPLY.

(2) EXCEPT FOR THE MCL OF 0.10 MG/L FOR TTHM, THIS RULE, R 325.10610a, R 325.10610b, R 325.10610c, R 325.10719e, AND R 325.10719f APPLY TO COMMUNITY AND NONTRANSIENT NONCOMMUNITY WATER SYSTEMS THAT ADD A CHEMICAL DISINFECTANT TO THE WATER IN ANY PART OF THE DRINKING WATER TREATMENT PROCESS AND TO TRANSIENT NONCOMMUNITY WATER SYSTEMS ADDING CHLORINE DIOXIDE. TRANSIENT NONCOMMUNITY WATER SYSTEMS ARE ONLY REQUIRED TO COMPLY WITH THE CHLORINE DIOXIDE REQUIREMENTS. THIS RULE, R 325.10610a, R 325.10610b, R 325.10610c, R 325.10719e, AND R 325.10719f ARE EFFECTIVE JANUARY 1, 2002, FOR SUBPART H SYSTEMS SERVING 10,000 OR MORE PEOPLE, AND BECOME EFFECTIVE JANUARY 1, 2004, FOR OTHER SYSTEMS SUBJECT TO THIS RULE.

R 325.10610a MAXIMUM RESIDUAL DISINFECTANT LEVELS.

RULE 610a. (1) MAXIMUM RESIDUAL DISINFECTANT LEVELS (MRDLS) ARE AS FOLLOWS:

DISINFECTANT RESIDUAL	MRDL (MG/L)

CHLORINE	4.0 AS CHLORINE
CHLORAMINES	4.0 AS CHLORINE
CHLORINE DIOXIDE	0.8 AS CHLORINE DIOXIDE

(2) THIS RULE APPLIES AS SPECIFIED IN R 325.10610(2).
(3) SUPPLIERS MAY INCREASE RESIDUAL DISINFECTANT LEVELS IN THE DISTRIBUTION SYSTEM OF CHLORINE OR CHLORAMINES, BUT SHALL NOT INCREASE THE LEVELS OF CHLORINE DIOXIDE, TO A LEVEL AND FOR A TIME NECESSARY TO PROTECT PUBLIC HEALTH TO ADDRESS SPECIFIC MICROBIOLOGICAL CONTAMINATION PROBLEMS CAUSED BY CIRCUMSTANCES SUCH AS, BUT NOT LIMITED TO, DISTRIBUTION LINE BREAKS, STORM RUN-OFF EVENTS, SOURCE WATER CONTAMINATION EVENTS, OR CROSS-CONNECTION EVENTS.

R 325.10610b DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS; COMPLIANCE REQUIREMENTS.
(1) THIS RULE APPLIES AS SPECIFIED IN R 325.10610(2). COMPLIANCE WITH THIS RULE IS BASED ON ALL OF THE FOLLOWING:
(a) ALL SAMPLES TAKEN AND ANALYZED UNDER R 325.10605, R 325.10610, R 325.610a, THIS RULE, R 325.10610c, R 325.10719e, AND R 325.10719f SHALL BE INCLUDED IN DETERMINING COMPLIANCE.
(b) IF, DURING THE FIRST YEAR OF MONITORING UNDER R 325.10719e, ANY INDIVIDUAL QUARTER'S AVERAGE WILL CAUSE THE RUNNING ANNUAL AVERAGE OF THAT SYSTEM TO EXCEED THE MCL, THE SYSTEM IS OUT OF COMPLIANCE AT THE END OF THAT QUARTER.
(c) A SYSTEM IS IN VIOLATION OF THE STATE DRINKING WATER STANDARD IF COMPLIANCE IS BASED ON 4 CONSECUTIVE QUARTERS OF MONITORING AND THE AVERAGE OF SAMPLES, OR QUARTERLY AVERAGES, OR RUNNING ANNUAL AVERAGES, WHICHEVER IS APPLICABLE, EXCEEDS THE STATE DRINKING WATER STANDARD, UNLESS OTHERWISE NOTED IN THIS RULE.
(d) WHERE COMPLIANCE IS BASED ON A RUNNING ANNUAL AVERAGE OF MONTHLY OR QUARTERLY SAMPLES OR AVERAGES AND THE SUPPLIER FAILS TO COMPLETE 4 CONSECUTIVE QUARTERS OR 12 CONSECUTIVE MONTHS OF MONITORING, WHICHEVER IS APPLICABLE, COMPLIANCE WITH THE MCL FOR THE LAST 4 QUARTER COMPLIANCE PERIOD IS BASED ON AN AVERAGE OF THE AVAILABLE DATA UNLESS OTHERWISE STATED IN THIS RULE.
(2) COMPLIANCE WITH DISINFECTION BYPRODUCTS REQUIREMENTS IS BASED ON ALL OF THE FOLLOWING:
(a) COMPLIANCE WITH TTHM AND HAA5 REQUIREMENTS ARE BASED ON BOTH OF THE FOLLOWING:
(i) FOR SUPPLIERS MONITORING QUARTERLY, COMPLIANCE WITH MCLS IN R 325.10610 IS BASED ON A RUNNING ANNUAL AVERAGE, COMPUTED QUARTERLY, OF QUARTERLY AVERAGES OF ALL SAMPLES COLLECTED UNDER R 325.10719e(2)(a).
(ii) FOR SUPPLIERS MONITORING LESS FREQUENTLY THAN QUARTERLY, COMPLIANCE IS BASED ON AN AVERAGE OF SAMPLES TAKEN THAT YEAR UNDER R 325.10719e(2)(a) IF THE AVERAGE DOES NOT EXCEED THE MCLS IN R 325.10610. IF THE AVERAGE OF THESE SAMPLES EXCEEDS THE MCL, SUPPLIERS SHALL INCREASE MONITORING TO ONCE

PER QUARTER PER TREATMENT PLANT AND THE SYSTEM IS NOT IN VIOLATION OF THE MCL UNTIL IT HAS COMPLETED 1 YEAR OF QUARTERLY MONITORING, UNLESS THE RESULT OF FEWER THAN 4 QUARTERS OF MONITORING WILL CAUSE THE RUNNING ANNUAL AVERAGE TO EXCEED THE MCL, IN WHICH CASE THE SYSTEM IS IN VIOLATION AT THE END OF THAT QUARTER. SUPPLIERS REQUIRED TO INCREASE MONITORING FREQUENCY TO QUARTERLY MONITORING SHALL CALCULATE COMPLIANCE BY INCLUDING THE SAMPLE WHICH TRIGGERED THE INCREASED MONITORING PLUS THE FOLLOWING 3 QUARTERS OF MONITORING.

(b) COMPLIANCE WITH THE BROMATE REQUIREMENTS IS BASED ON A RUNNING ANNUAL AVERAGE, COMPUTED QUARTERLY, OF MONTHLY SAMPLES, OR, FOR MONTHS IN WHICH THE SYSTEM TAKES MORE THAN 1 SAMPLE, THE AVERAGE OF ALL SAMPLES TAKEN DURING THE MONTH, COLLECTED UNDER R 325.10719e(2)(c).

(c) COMPLIANCE WITH THE CHLORITE REQUIREMENTS IS BASED ON AN AVERAGE OF EACH 3-SAMPLE SET TAKEN IN THE DISTRIBUTION SYSTEM UNDER R325.10719e(2)(b)(i)(B) AND R 325.10719e(2)(b)(ii). IF THE AVERAGE OF ANY 3-SAMPLE SET EXCEEDS THE MCL, THE SYSTEM IS IN VIOLATION OF THE MCL.

(3) COMPLIANCE WITH DISINFECTANT RESIDUALS REQUIREMENTS IS BASED ON BOTH OF THE FOLLOWING:

(a) COMPLIANCE WITH THE CHLORINE AND CHLORAMINES REQUIREMENTS IS BASED ON A RUNNING ANNUAL AVERAGE, COMPUTED QUARTERLY, OF MONTHLY AVERAGES OF ALL SAMPLES COLLECTED BY THE SYSTEM UNDER R 325.10719e(3)(a). IN CASES WHERE SYSTEMS SWITCH BETWEEN THE USE OF CHLORINE AND CHLORAMINES FOR RESIDUAL DISINFECTION DURING THE YEAR, COMPLIANCE IS DETERMINED BY INCLUDING TOGETHER ALL MONITORING RESULTS OF BOTH CHLORINE AND CHLORAMINES IN CALCULATING COMPLIANCE. SUPPLIERS SHALL CLEARLY INDICATE WHICH RESIDUAL DISINFECTANT WAS ANALYZED FOR EACH SAMPLE WHEN SUBMITTING REPORTS TO THE DEPARTMENT UNDER R 325.11502a.

(b) COMPLIANCE WITH THE CHLORINE DIOXIDE REQUIREMENTS IS BASED ON CONSECUTIVE DAILY SAMPLES COLLECTED BY THE SYSTEM UNDER R 325.10719e(3)(b).

(i) A TIER 1 VIOLATION OCCURS WHEN A DAILY SAMPLE TAKEN AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM EXCEEDS THE MRDL, AND ON THE FOLLOWING DAY 1, OR MORE, OF THE 3 SAMPLES TAKEN IN THE DISTRIBUTION SYSTEM EXCEED THE MRDL. THE SUPPLIER SHALL TAKE IMMEDIATE CORRECTIVE ACTION TO LOWER THE LEVEL OF CHLORINE DIOXIDE BELOW THE MRDL. FAILURE TO MONITOR IN THE DISTRIBUTION SYSTEM THE DAY FOLLOWING AN EXCEEDANCE OF THE CHLORINE DIOXIDE MRDL AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM IS ALSO A TIER 1 MRDL VIOLATION.

(ii) A TIER 2 VIOLATION OCCURS WHEN 2 CONSECUTIVE DAILY SAMPLES TAKEN AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM EXCEED THE MRDL AND ALL DISTRIBUTION SYSTEM SAMPLES TAKEN ARE BELOW THE MRDL. THE SUPPLIER SHALL TAKE CORRECTIVE ACTION TO LOWER THE LEVEL OF CHLORINE DIOXIDE BELOW THE MRDL AT THE POINT OF SAMPLING. FAILURE TO MONITOR AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM THE DAY FOLLOWING AN EXCEEDANCE OF THE CHLORINE DIOXIDE MRDL AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM IS ALSO A TIER 2 MRDL VIOLATION.

(4) COMPLIANCE WITH THE TREATMENT TECHNIQUE FOR DISINFECTION BYPRODUCT PRECURSORS (DBPP) IS DETERMINED AS SPECIFIED BY R 325.10610c(3). SUPPLIERS MAY BEGIN MONITORING TO DETERMINE WHETHER STEP 1 TOC REMOVALS CAN BE MET 12 MONTHS BEFORE THE COMPLIANCE DATE FOR THE SYSTEM. THIS MONITORING IS NOT REQUIRED AND FAILURE TO MONITOR DURING THIS PERIOD IS NOT A VIOLATION. HOWEVER, A SUPPLIER THAT DOES NOT MONITOR DURING THIS PERIOD, AND THEN DETERMINES, IN THE FIRST 12 MONTHS AFTER THE COMPLIANCE DATE, THAT THE SYSTEM IS NOT ABLE TO MEET THE STEP 1 REQUIREMENTS IN R 325.10610c(2)(b) AND SHALL THEREFORE APPLY FOR ALTERNATE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS, IS NOT ELIGIBLE FOR RETROACTIVE APPROVAL OF ALTERNATE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS AS ALLOWED UNDER R 325.10610c(2)(c) AND IS IN VIOLATION. SUPPLIERS MAY APPLY FOR ALTERNATE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS ANY TIME AFTER THE COMPLIANCE DATE. FOR SYSTEMS REQUIRED TO MEET STEP 1 TOC REMOVALS, IF THE VALUE CALCULATED UNDER R 325.10610c(3)(a)(iv) IS LESS THAN 1.00 CALCULATED AS A RUNNING ANNUAL AVERAGE OF MONTHLY SAMPLES, COMPUTED QUARTERLY, THE SYSTEM IS IN VIOLATION OF THE TREATMENT TECHNIQUE REQUIREMENTS.

R 325.10610c TREATMENT TECHNIQUE FOR CONTROL OF DISINFECTION BYPRODUCT (DBP) PRECURSORS.

RULE 610c. (1) THIS RULE APPLIES AS SPECIFIED IN R 325.10610(2). COMPLIANCE WITH THIS RULE IS BASED ON ALL OF THE FOLLOWING:

(a) SUPPLIERS OF SUBPART H SYSTEMS USING CONVENTIONAL FILTRATION SHALL OPERATE WITH ENHANCED COAGULATION OR ENHANCED SOFTENING TO ACHIEVE THE TOC PERCENT REMOVAL LEVELS SPECIFIED IN SUBRULE (2) OF THIS RULE UNLESS THE SYSTEM MEETS AT LEAST 1 OF THE ALTERNATIVE COMPLIANCE CRITERIA LISTED IN SUBDIVISION (b) OR (c) OF THIS SUBRULE.

(b) SUPPLIERS OF SUBPART H SYSTEMS USING CONVENTIONAL FILTRATION MAY USE THE FOLLOWING ALTERNATIVE COMPLIANCE CRITERIA TO COMPLY WITH THIS RULE INSTEAD OF COMPLYING WITH SUBRULE (2) OF THIS RULE. SUPPLIERS OF SYSTEMS USING ALTERNATIVE COMPLIANCE CRITERIA SHALL STILL COMPLY WITH TOC MONITORING REQUIREMENTS IN R 325.10719e(4):

(i) THE SYSTEM'S SOURCE WATER TOC LEVEL IS LESS THAN 2.0 MG/L, CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE.

(ii) THE SYSTEM'S TREATED WATER TOC LEVEL IS LESS THAN 2.0 MG/L, CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE.

(iii) THE SYSTEM'S SOURCE WATER TOC LEVEL IS LESS THAN 4.0 MG/L, CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE; THE SOURCE WATER ALKALINITY, MEASURED UNDER R 325.10605, IS MORE THAN 60 MG/L AS CALCIUM CARBONATE, CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE; AND EITHER THE TTHM AND HAA5 RUNNING ANNUAL AVERAGES ARE NOT MORE THAN 0.040 MG/L AND 0.030 MG/L, RESPECTIVELY, OR BEFORE THE EFFECTIVE DATE FOR COMPLIANCE IN R 325.10610(2), THE SUPPLIER HAS MADE A CLEAR AND IRREVOCABLE FINANCIAL COMMITMENT TO USE TECHNOLOGIES THAT WILL LIMIT THE LEVELS OF TTHM AND HAA5 TO NOT MORE THAN 0.040 MG/L AND 0.030 MG/L, RESPECTIVELY. SUPPLIERS SHALL

SUBMIT EVIDENCE OF A CLEAR AND IRREVOCABLE FINANCIAL COMMITMENT, IN ADDITION TO A SCHEDULE CONTAINING MILESTONES AND PERIODIC PROGRESS REPORTS FOR INSTALLATION AND OPERATION OF APPROPRIATE TECHNOLOGIES, TO THE DEPARTMENT FOR APPROVAL NOT LATER THAN THE EFFECTIVE DATE FOR COMPLIANCE IN R 325.10610(2). THESE TECHNOLOGIES SHALL BE INSTALLED AND OPERATING NOT LATER THAN JUNE 30, 2005. FAILURE TO INSTALL AND OPERATE THESE TECHNOLOGIES BY THE DATE IN THE APPROVED SCHEDULE IS A VIOLATION OF THESE RULES.

(iv) THE TTHM AND HAA5 RUNNING ANNUAL AVERAGES ARE NOT MORE THAN 0.040 MG/L AND 0.030 MG/L, RESPECTIVELY, AND THE SUPPLIER USES ONLY CHLORINE FOR PRIMARY DISINFECTION AND MAINTENANCE OF A RESIDUAL IN THE DISTRIBUTION SYSTEM.

(v) THE SYSTEM'S SOURCE WATER SUVA, BEFORE ANY TREATMENT AND MEASURED MONTHLY, IS LESS THAN OR EQUAL TO 2.0 LITERS PER MILLIGRAM METER (L/MG-M), CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE.

(vi) THE SYSTEM'S FINISHED WATER SUVA, MEASURED MONTHLY, IS LESS THAN OR EQUAL TO 2.0 L/MG-M, CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE.

(c) SUPPLIERS OF SYSTEMS PRACTICING ENHANCED SOFTENING THAT CANNOT ACHIEVE THE TOC REMOVALS REQUIRED BY SUBRULE (2)(b) OF THIS RULE MAY USE THE FOLLOWING ALTERNATIVE COMPLIANCE CRITERIA INSTEAD OF COMPLYING WITH SUBRULE (2) OF THIS RULE; HOWEVER, SUPPLIERS OF SYSTEMS USING ALTERNATIVE COMPLIANCE CRITERIA SHALL STILL COMPLY WITH TOC MONITORING REQUIREMENTS IN R 325.10719e(4)(b):

(i) SOFTENING THAT RESULTS IN LOWERING THE TREATED WATER ALKALINITY TO LESS THAN 60 MG/L AS CALCIUM CARBONATE, MEASURED MONTHLY AND CALCULATED QUARTERLY AS A RUNNING ANNUAL AVERAGE.

(ii) SOFTENING THAT RESULTS IN REMOVING NOT LESS THAN 10 MG/L OF MAGNESIUM HARDNESS AS CALCIUM CARBONATE, MEASURED MONTHLY AND CALCULATED QUARTERLY AS AN ANNUAL RUNNING AVERAGE.

(2) ALL OF THE FOLLOWING PROVISIONS ARE ENHANCED COAGULATION AND ENHANCED SOFTENING PERFORMANCE REQUIREMENTS:

(a) SUPPLIERS SHALL ACHIEVE THE PERCENT REDUCTION OF TOC SPECIFIED IN SUBDIVISION (b) OF THIS SUBRULE BETWEEN THE SOURCE WATER AND THE COMBINED FILTER EFFLUENT, UNLESS THE DEPARTMENT APPROVES A SUPPLIER'S REQUEST FOR ALTERNATE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS UNDER SUBDIVISION (c) OF THIS SUBRULE.

(b) REQUIRED STEP 1 TOC REDUCTIONS, INDICATED IN TABLE 1 OF THIS RULE, ARE BASED ON SPECIFIED SOURCE WATER PARAMETERS. SUPPLIERS PRACTICING SOFTENING ARE REQUIRED TO MEET THE STEP 1 TOC REDUCTIONS IN THE FAR-RIGHT COLUMN "SOURCE WATER ALKALINITY >120 MG/L" FOR THE SPECIFIED SOURCE WATER TOC.

TABLE 1 STEP 1 REQUIRED REMOVAL OF TOC BY ENHANCED COAGULATION AND ENHANCED SOFTENING FOR SUBPART H SYSTEMS USING CONVENTIONAL FILTRATION [A, B]

SOURCE-WATER TOC, MG/L	*SOURCE-WATER ALKALINITY, MG/L AS CALCIUM CARBONATE*		
	0-60	*>60-120*	*>120*[C]
>2.0-4.0	35.0%	25.0%	15.0%
>4.0-8.0	45.0%	35.0%	25.0%
>8.0	50.0%	40.0%	30.0%

[A] SUPPLIERS MEETING AT LEAST 1 OF THE CONDITIONS IN SUBRULE (1)(b)(i) THROUGH (vi) OF THIS RULE ARE NOT REQUIRED TO OPERATE WITH ENHANCED COAGULATION.
[B] SUPPLIERS OF SOFTENING SYSTEMS MEETING 1 OF THE ALTERNATIVE COMPLIANCE CRITERIA IN SUBRULE (1)(c) OF THIS RULE ARE NOT REQUIRED TO OPERATE WITH ENHANCED SOFTENING.
[C] SUPPLIERS PRACTICING SOFTENING SHALL MEET THE TOC REMOVAL REQUIREMENTS IN THIS COLUMN.

(c) SUPPLIERS OF SUBPART H CONVENTIONAL FILTRATION SYSTEMS THAT CANNOT ACHIEVE THE STEP 1 TOC REMOVALS REQUIRED BY SUBDIVISION (b) OF THIS SUBRULE DUE TO WATER QUALITY PARAMETERS OR OPERATIONAL CONSTRAINTS SHALL APPLY TO THE DEPARTMENT, WITHIN 3 MONTHS OF FAILURE TO ACHIEVE THE TOC REMOVALS REQUIRED BY SUBDIVISION (b) OF THIS SUBRULE, FOR APPROVAL OF ALTERNATIVE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS SUBMITTED BY THE SYSTEM. IF THE DEPARTMENT APPROVES THE STEP 2 REQUIREMENTS, THEN A SYSTEM'S FAILURE TO MEET THE STEP 1 TOC REMOVALS WILL NOT BE CONSIDERED A TREATMENT TECHNIQUE VIOLATION DURING THE INTERIM TIME PERIOD BETWEEN THE END OF THE 12-MONTH DATA GATHERING MONITORING PERIOD IN R 325.10610b(4) AND RECEIPT OF THE DEPARTMENT'S APPROVAL. UNTIL THE DEPARTMENT APPROVES THE STEP 2 REQUIREMENTS, THE SYSTEM SHALL MEET THE STEP 1 TOC REMOVALS CONTAINED IN SUBDIVISION (b) OF THIS SUBRULE.
(d) APPLICATIONS MADE TO THE DEPARTMENT BY SUPPLIERS OF ENHANCED COAGULATION SYSTEMS FOR APPROVAL OF ALTERNATIVE MINIMUM TOC REMOVAL (STEP 2) REQUIREMENTS UNDER SUBDIVISION (c) OF THIS SUBRULE SHALL INCLUDE, AT A MINIMUM, RESULTS OF BENCH- OR PILOT-SCALE TESTING CONDUCTED UNDER PARAGRAPH (i) OF THIS SUBDIVISION TO DETERMINE THE ALTERNATE ENHANCED COAGULATION LEVEL:
(i) ALTERNATE ENHANCED COAGULATION LEVEL IS DEFINED AS COAGULATION AT A COAGULANT DOSE AND PH AS DETERMINED BY THE METHOD DESCRIBED IN PARAGRAPHS (i) THROUGH (v) OF THIS SUBDIVISION SUCH THAT AN INCREMENTAL ADDITION OF 10 MG/L OF ALUM, OR EQUIVALENT AMOUNT OF FERRIC SALT, RESULTS IN A TOC REMOVAL OF LESS THAN OR EQUAL TO 0.3 MG/L. THE PERCENT REMOVAL OF TOC

AT THIS POINT IS THE MINIMUM TOC REMOVAL REQUIRED FOR THE SYSTEM. ONCE APPROVED BY THE DEPARTMENT, THIS MINIMUM REQUIREMENT SUPERSEDES THE MINIMUM TOC REMOVAL REQUIRED BY TABLE 1 OF THIS RULE. THIS REQUIREMENT WILL BE EFFECTIVE UNTIL THE DEPARTMENT APPROVES A NEW VALUE BASED ON THE RESULTS OF A NEW BENCH- AND PILOT-SCALE TEST. FAILURE TO ACHIEVE DEPARTMENT-SET ALTERNATIVE MINIMUM TOC REMOVAL LEVELS IS A VIOLATION OF THESE RULES.

(ii) BENCH- OR PILOT-SCALE TESTING OF ENHANCED COAGULATION SHALL BE CONDUCTED BY USING REPRESENTATIVE WATER SAMPLES AND ADDING 10 MG/L INCREMENTS OF ALUM, OR EQUIVALENT AMOUNTS OF FERRIC SALT, UNTIL THE PH IS REDUCED TO A LEVEL LESS THAN OR EQUAL TO THE ENHANCED COAGULATION STEP 2 TARGET PH SHOWN IN THE FOLLOWING TABLE:

TABLE 2 ENHANCED COAGULATION STEP 2 TARGET PH

ALKALINITY (MG/L AS CALCIUM CARBONATE)	*TARGET PH*
0-60	5.5
>60-120	6.3
>120-240	7.0
>240	7.5

(iii) FOR WATERS WITH ALKALINITIES OF LESS THAN 60 MG/L FOR WHICH ADDITION OF SMALL AMOUNTS OF ALUM OR EQUIVALENT ADDITION OF IRON COAGULANT DRIVES THE PH BELOW 5.5 BEFORE SIGNIFICANT TOC REMOVAL OCCURS, THE SUPPLIER SHALL ADD NECESSARY CHEMICALS TO MAINTAIN THE PH BETWEEN 5.3 AND 5.7 IN SAMPLES UNTIL THE TOC REMOVAL OF 0.3 MG/L PER 10 MG/L ALUM ADDED, OR EQUIVALANT ADDITION OF IRON COAGULANT, IS REACHED.

(iv) THE SYSTEM MAY OPERATE AT ANY COAGULANT DOSE OR PH NECESSARY, AND CONSISTANT WITH THESE RULES, TO ACHIEVE THE MINIMUM TOC PERCENT REMOVAL APPROVED UNDER SUBDIVISION (c) OF THIS SUBRULE.

(v) IF THE TOC REMOVAL IS CONSISTENTLY LESS THAN 0.3 MG/L OF TOC PER 10 MG/L OF INCREMENTAL ALUM DOSE AT ALL DOSAGES OF ALUM, OR EQUIVALANT ADDITION OF IRON COAGULANT, THE WATER IS CONSIDERED TO CONTAIN TOC NOT AMENABLE TO ENHANCED COAGULATION. THE SUPPLIER MAY THEN APPLY TO THE DEPARTMENT FOR A WAIVER OF ENHANCED COAGULATION REQUIREMENTS. THE DEPARTMENT'S DETERMINATION WILL BE MADE ON A CASE-BY-CASE BASIS AND THE DEPARTMENT WILL CONSIDER SUPPORTING DOCUMENTATION FROM THE WATER SUPPLIER OF BENCH OR PILOT SCALE TESTING DESIGNED TO DEMONSTRATE THE BEST LEVEL OF TOC REMOVAL THAT IS FEASIBLY ATTAINABLE, GIVEN THE UNIQUE CHARACTERISTICS OF THE RAW WATER TO BE TREATED.

(3) SUPPLIERS SHALL CALCULATE COMPLIANCE USING THE METHODS IN EITHER OF THE FOLLOWING PROVISIONS, AS APPLICABLE:

(a) SUPPLIERS OF SUBPART H SYSTEMS, OTHER THAN THOSE IDENTIFIED IN SUBRULE (1)(b) OR (c) OF THIS RULE, SHALL COMPLY WITH REQUIREMENTS CONTAINED IN SUBULE (2)(b) OR (c) OF THIS RULE. SUPPLIERS SHALL CALCULATE COMPLIANCE QUARTERLY, BEGINNING AFTER THE SUPPLIER HAS COLLECTED 12 MONTHS OF DATA, BY DETERMINING AN ANNUAL AVERAGE USING THE FOLLOWING METHOD:

(i) DETERMINE ACTUAL MONTHLY TOC PERCENT REMOVAL, EQUAL TO: (1 - (TREATED WATER TOC/SOURCE WATER TOC)) X 100.

(ii) DETERMINE THE REQUIRED MONTHLY TOC PERCENT REMOVAL, FROM EITHER TABLE 1 OF THIS RULE OR FROM SUBRULE (2)(c) OF THIS RULE.

(iii) DIVIDE THE VALUE IN PARAGRAPH (i) OF THIS SUBDIVISION BY THE VALUE IN PARAGRAPH (ii) OF THIS SUBDIVISION.

(iv) ADD TOGETHER THE RESULTS OF PARAGRAPH (iii) OF THIS SUBDIVISION FOR THE LAST 12 MONTHS AND DIVIDE BY 12.

(v) IF THE VALUE CALCULATED IN PARAGRAPH (iv) OF THIS SUBDIVISION IS LESS THAN 1.00, THE SYSTEM IS NOT IN COMPLIANCE WITH THE TOC PERCENT REMOVAL REQUIREMENTS.

(b) SUPPLIERS MAY USE THE PROVISIONS IN PARAGRAPHS (i) THROUGH (v) OF THIS SUBDIVISION INSTEAD OF THE CALCULATIONS IN SUBDIVISION (a)(i) THROUGH (v) OF THIS SUBRULE TO DETERMINE COMPLIANCE WITH TOC PERCENT REMOVAL REQUIREMENTS, AS FOLLOWS:

(i) IN ANY MONTH THAT THE SYSTEM'S TREATED OR SOURCE WATER TOC LEVEL IS LESS THAN 2.0 MG/L, THE SUPPLIER MAY ASSIGN A MONTHLY VALUE OF 1.0, INSTEAD OF THE VALUE CALCULATED IN SUBDIVISION (a)(iii) OF THIS SUBRULE, WHEN CALCULATING COMPLIANCE UNDER SUBDIVISION (a) OF THIS SUBRULE.

(ii) IN ANY MONTH THAT A SYSTEM PRACTICING SOFTENING REMOVES NOT LESS THAN 10 MG/L OF MAGNESIUM HARDNESS AS CALCIUM CARBONATE, THE SUPPLIER MAY ASSIGN A MONTHLY VALUE OF 1.0, INSTEAD OF THE VALUE CALCULATED IN SUBDIVISION (a)(iii) OF THIS SUBRULE, WHEN CALCULATING COMPLIANCE UNDER SUBDIVISION (a) OF THIS SUBRULE.

(iii) IN ANY MONTH THAT THE SYSTEM'S SOURCE WATER SUVA, BEFORE ANY TREATMENT, IS LESS THAN OR EQUAL TO 2.0 L/MG-M, THE SUPPLIER MAY ASSIGN A MONTHLY VALUE OF 1.0, INSTEAD OF THE VALUE CALCULATED IN SUBDIVISION (a)(iii) OF THIS SUBRULE, WHEN CALCULATING COMPLIANCE UNDER SUBDIVISION (a) OF THIS SUBRULE.

(iv) IN ANY MONTH THAT THE SYSTEM'S FINISHED WATER SUVA IS LESS THAN OR EQUAL TO 2.0 L/MG-M, THE SUPPLIER MAY ASSIGN A MONTHLY VALUE OF 1.0, INSTEAD OF THE VALUE CALCULATED IN SUBDIVISION (a)(iii) OF THIS SUBRULE, WHEN CALCULATING COMPLIANCE UNDER SUBDIVISION (a) OF THIS SUBRULE.

(v) IN ANY MONTH THAT A SYSTEM PRACTICING ENHANCED SOFTENING LOWERS ALKALINITY BELOW 60 MG/L AS CALCIUM CARBONATE, THE SUPPLIER MAY ASSIGN A MONTHLY VALUE OF 1.0, INSTEAD OF THE VALUE CALCULATED IN SUBDIVISION (a)(iii) OF THIS SUBRULE, WHEN CALCULATING COMPLIANCE UNDER SUBDIVISION (a) OF THIS SUBRULE.

(4) THE TREATMENT TECHNIQUES TO CONTROL THE LEVEL OF DISINFECTION BYPRODUCT PRECURSORS IN DRINKING WATER TREATMENT AND DISTRIBUTION

SYSTEMS FOR SUBPART H SYSTEMS USING CONVENTIONAL FILTRATION IS ENHANCED COAGULATION OR ENHANCED SOFTENING.

R 325.10611 FILTRATION AND DISINFECTION; GENERALLY.

RULE 611. (1) A SUPPLIER OF A PUBLIC WATER SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF R 325.10807, R 325.10808, R 325.10812, R 325.10813, R 325.10816, R 325.10817, R 325.10818, R 325.10819, R 325.10820, AND R 325.10822, SHALL DEMONSTRATE A SAFE MICROBIOLOGICAL WATER QUALITY HISTORY, AND MAY BE REQUIRED TO DEMONSTRATE STABILITY IN OTHER MEASUREMENTS OF WATER QUALITY; OR THE SUPPLIER SHALL PROVIDE COMPLETE TREATMENT.

(2) THE DEPARTMENT MAY GRANT A DEVIATION FROM THE PROVISIONS OF SUBRULE (1) OF THIS RULE IF THE SUPPLIER CAN DEMONSTRATE THAT THE SYSTEM IS CAPABLE OF PRODUCING FINISHED WATER MEETING STATE DRINKING WATER STANDARDS APPLICABLE TO SYSTEMS USING ONLY GROUND WATER NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER.

(3) SUPPLIERS OF SUBPART H SYSTEMS SHALL COMPLY WITH THE TREATMENT TECHNIQUES OF THIS RULE, R 325.10611a, R 325.10611b, THE SAMPLING REQUIREMENTS OF R 325.10720, AND THE REPORTING AND RECORDKEEPING REQUIREMENTS OF R 325.10720a, EXCEPT WHERE NOTED. THE TREATMENT TECHNIQUE REQUIREMENTS CONSIST OF INSTALLING AND PROPERLY OPERATING WATER TREATMENT PROCESSES THAT RELIABLY ACHIEVE ALL OF THE FOLLOWING APPLICABLE REMOVAL OR INACTIVATION PERCENTAGES BETWEEN A POINT WHERE THE RAW WATER IS NOT SUBJECT TO RECONTAMINATION BY SURFACE WATER RUNOFF AND A POINT DOWNSTREAM BEFORE OR AT THE FIRST CUSTOMER:

(a) NOT LESS THAN 99.9% (3-LOG) INACTIVATION OR THE REMOVAL OF GIARDIA LAMBLIA CYSTS AND NOT LESS THAN 99.99% (4-LOG) INACTIVATION OR THE REMOVAL OF VIRUSES.

(b) A 99% (2-LOG) REMOVAL OF CRYPTOSPORIDIUM OOCYSTS FOR SYSTEMS SUBJECT TO THIS RULE SERVING 10,000 OR MORE PEOPLE.

(4) IF THE DEPARTMENT DETERMINES THAT A SYSTEM REQUIRES COMPLETE TREATMENT EITHER UNDER SUBRULES (1) AND (2) OR BECAUSE THE SYSTEM USES SURFACE WATER OR GROUNDWATER UNDER THE DIRECT INFLUENCE OF SURFACE WATER, THEN THE SUPPLIER SHALL PROVIDE COMPLETE TREATMENT WITHIN 18 MONTHS OF THE DEPARTMENT'S DETERMINATION AND SHALL PROVIDE INTERIM DISINFECTION AND MONITORING AS CONSIDERED NECESSARY BY THE DEPARTMENT. DURING THE INTERIM DISINFECTION PERIOD, SYSTEMS REQUIRING COMPLETE TREATMENT UNDER SUBRULE (1) AND (2) OF THIS RULE SHALL DEMONSTRATE SAFE MICROBIOLOGICAL WATER QUALITY. SUBPART H SYSTEMS ARE SUBJECT TO SUBRULE (3) OF THIS RULE WITHIN 18 MONTHS OR UNTIL TREATMENT IS INSTALLED, WHICHEVER OCCURS FIRST. DURING THE INTERIM DISINFECTION PERIOD, SUBPART H SYSTEMS SHALL ALSO COMPLY WITH BOTH OF THE FOLLOWING PROVISIONS:

(a) THE SUPPLIER SHALL COLLECT AT LEAST 1 SAMPLE FROM THE SOURCE WATER EVERY 4 HOURS WHILE THE SOURCE IS BEING UTILIZED AND HAVE THE SAMPLE ANALYZED FOR TURBIDITY.

(b) IF THE RESULT OF 1 OR MORE SAMPLES TAKEN UNDER SUBDIVISION (a) OF THIS SUBRULE IS MORE THAN 1 NTU, THEN WITHIN 24 HOURS OF THE DETERMINATION THAT A TURBIDITY MEASUREMENT IS MORE THAN 1 NTU, THE SUPPLIER SHALL COLLECT AT LEAST 1 SAMPLE NEAR THE FIRST SERVICE CONNECTION AND HAVE THE SAMPLE ANALYZED FOR TOTAL COLIFORM. SAMPLE RESULTS FROM THE COLIFORM MONITORING SHALL BE INCLUDED IN DETERMINING COMPLIANCE WITH THE TOTAL COLIFORM STANDARD.

R 325.10611a FILTRATION AND DISINFECTION; DISINFECTION.

RULE 611a. (1) SUBPART H SYSTEMS SHALL PROVIDE SUFFICIENT DISINFECTANT CONTACT TIME BEFORE THE WATER ENTERS THE DISTRIBUTION SYSTEM TO ASSURE ADEQUATE DISINFECTION.

(2) SUBPART H SYSTEMS SHALL PROVIDE DISINFECTION TREATMENT ACHIEVING ALL OF THE FOLLOWING CONDITIONS:

(a) THE DISINFECTION TREATMENT SHALL BE SUFFICIENT TO ENSURE THAT THE TOTAL TREATMENT PROCESSES OF THAT SYSTEM ACHIEVE THE STANDARDS SET FORTH IN R 325.611(3)(a).

(b) THE RESIDUAL DISINFECTANT CONCENTRATION IN THE WATER ENTERING THE DISTRIBUTION SYSTEM SHALL NOT BE LESS THAN 0.2 MILLIGRAMS PER LITER FOR MORE THAN 4 HOURS.

(c) THE RESIDUAL DISINFECTANT CONCENTRATION IN THE DISTRIBUTION SYSTEM, MEASURED AS TOTAL CHLORINE, FREE AVAILABLE CHLORINE, COMBINED CHLORINE, OR CHLORINE DIOXIDE SHALL NOT BE UNDETECTABLE IN MORE THAN 5% OF THE SAMPLES EACH MONTH FOR ANY 2 CONSECUTIVE MONTHS THAT THE SYSTEM SERVES WATER TO THE PUBLIC. WATER IN THE DISTRIBUTION SYSTEM THAT HAS A HETEROTROPHIC BACTERIA CONCENTRATION LESS THAN OR EQUAL TO 500 PER MILLILITER, MEASURED AS HETEROTROPHIC PLATE COUNT (HPC), IS CONSIDERED TO HAVE A DETECTABLE DISINFECTANT RESIDUAL FOR PURPOSES OF DETERMINING COMPLIANCE WITH THIS SUBDIVISION.

(d) IF THE DEPARTMENT DETERMINES, BASED ON SITE-SPECIFIC CONSIDERATIONS, THAT A SYSTEM DOES NOT HAVE MEANS FOR HAVING A SAMPLE TRANSPORTED AND ANALYZED FOR HPC AND THAT THE SYSTEM IS PROVIDING ADEQUATE DISINFECTION IN THE DISTRIBUTION SYSTEM, THEN THE REQUIREMENTS OF SUBDIVISION (c) OF THIS SUBRULE DO NOT APPLY.

R 325.10611b FILTRATION AND DISINFECTION; FILTRATION.

RULE 611b. (1) SUPPLIERS OF SUBPART H SYSTEMS SHALL COMPLY WITH BOTH OF THE FOLLOWING FILTRATION REQUIREMENTS, AS APPLICABLE:

(a) FOR SUPPLIERS OF SYSTEMS USING CONVENTIONAL FILTRATION, DIRECT FILTRATION, OR MEMBRANE FILTRATION, THE TURBIDITY LEVEL OF REPRESENTATIVE SAMPLES OF A SYSTEM'S FILTERED WATER SHALL AT NO TIME EXCEED 1 NTU FOR SYSTEMS SERVING 10,000 OR MORE PEOPLE, OR 5 NTU FOR SYSTEMS SERVING FEWER THAN 10,000 PEOPLE. IN NOT LESS THAN 95% OF THE MEASUREMENTS TAKEN EACH MONTH, THE TURBIDITY LEVEL OF REPRESENTATIVE SAMPLES OF A SYSTEM'S FILTERED

WATER SHALL BE LESS THAN OR EQUAL TO 0.3 NTU FOR SYSTEMS SERVING 10,000 OR MORE PEOPLE, OR 0.5 NTU FOR OTHER SYSTEMS.

(b) FOR SUPPLIERS OF SYSTEMS USING SLOW SAND FILTRATION OR DIATOMACEOUS EARTH FILTRATION, THE TURBIDITY LEVEL OF REPRESENTATIVE SAMPLES OF A SYSTEM'S FILTERED WATER SHALL AT NO TIME EXCEED 5 NTU, AND SHALL BE LESS THAN OR EQUAL TO 1 NTU IN NOT LESS THAN 95% OF THE MEASUREMENTS TAKEN EACH MONTH.

(2) A SYSTEM USING LIME SOFTENING, WHERE THE FINAL PH EXCEEDS 8.3, MAY ACIDIFY REPRESENTATIVE SAMPLES BEFORE TURBIDITY ANALYSIS USING A PROTOCOL APPROVED BY THE DEPARTMENT. THE APPROVED PROTOCOL SHALL REQUIRE THE USE OF A CONCENTRATED ACID IN SUFFICIENT QUANTITIES TO LOWER THE PH TO LESS THAN 8.3, DISSOLVE ONLY CALCIUM CARBONATE AND MAGNESIUM HYDROXIDE, AND NOT TO DILUTE THE REPRESENTATIVE SAMPLE.

(3) A PUBLIC WATER SYSTEM MAY USE A FILTRATION TECHNOLOGY NOT LISTED IN SUBRULE (1) OF THIS RULE IF THE SUPPLIER DEMONSTRATES TO THE DEPARTMENT, USING PILOT PLANT STUDIES OR OTHER MEANS, THAT THE ALTERNATIVE FILTRATION TECHNOLOGY, IN COMBINATION WITH DISINFECTION TREATMENT, CONSISTENTLY ACHIEVES THE REMOVAL OR INACTIVATION PERCENTAGES SET FORTH IN R325.10611(3), AND THE DEPARTMENT APPROVES THE USE OF THE FILTRATION TECHNOLOGY. FOR EACH APPROVAL, THE DEPARTMENT WILL SET TURBIDITY PERFORMANCE REQUIREMENT THAT THE SYSTEM SHALL MEET NOT LESS THAN 95% OF THE TIME AND THE SYSTEM SHALL NOT EXCEED, AT ANY TIME, A LEVEL THAT CONSISTENTLY ACHIEVES THE REMOVAL OR INACTIVATION PERCENTAGES SET FORTH IN R 325.10611(3).

PROPOSED ADMINISTRATIVE RULES

ORR #2002-023

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019 and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.10702, R 325.10704, R 325.10706, R 325.10707b, R 325.10719a, R 325.10719d, and R 325.10720 of the Michigan Administrative Code are amended, R 325.10719e, R 325.10719f, and R 325.10720a are added to the Code, and R 325.10719 and R 325.10721 of the Code are rescinded as follows:

PART 7. SURVEILLANCE, INSPECTION, AND MONITORING

R 325.10702 Evaluation of adequacy and condition of public water ~~supplies~~ SYSTEMS; sanitary surveys.

Rule 702. (1) ~~In accordance with the provisions of~~ UNDER section 3 of the act, the department shall make sanitary surveys, on-site inspections, surveillance observations, or special purpose investigations for the purpose of evaluating the adequacy and condition of public water ~~supplies~~ SYSTEMS at a frequency which may be determined by the department.

(2) ~~The facilities of type I and type II public water supplies~~ COMMUNITY AND NONCOMMUNITY WATER SYSTEMS which ~~are~~ DO not ~~required to have~~ COLLECT 5 or more routine samples per month ~~collected pursuant to the provisions of~~ UNDER R 325.10705(2) and R 325.10706(2) shall undergo an initial sanitary survey by June 29, 1994, for ~~type I public water supplies~~ COMMUNITY WATER SYSTEMS and by June 29, 1999, for ~~type II water supplies~~ NONCOMMUNITY WATER SYSTEMS. ~~The facilities of these water supplies~~ THESE SYSTEMS shall undergo another sanitary survey every 5 years, except ~~that the facilities of type II public water supplies~~ NONCOMMUNITY WATER SYSTEMS that use only disinfected groundwater NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER meeting ~~the requirements of R 325.11004(1)~~ STATE DRINKING WATER STANDARDS shall undergo subsequent sanitary surveys at least once every 10 years after the initial sanitary survey. Based on the results of each sanitary survey, the department shall determine whether the existing monitoring frequency is adequate and what additional measures, if any, the ~~water~~ supplier ~~needs to undertake~~ SHALL TAKE to improve drinking water quality.

(3) SUBPART H SYSTEMS SERVING 10,000 OR MORE PEOPLE SHALL UNDERGO SANITARY SURVEYS AT LEAST ONCE EVERY 3 YEARS FOR COMMUNITY WATER SYSTEMS AND AT

LEAST ONCE EVERY 5 YEARS FOR NONCOMMUNITY WATER SYSTEMS. COMMUNITY WATER SYSTEMS THAT HAVE UNDERGONE SANITARY SURVEYS AFTER DECEMBER 1995 AND HAVE DEMONSTRATED OUTSTANDING PERFORMANCE MAY REDUCE THE FREQUENCY OF SANITARY SURVEYS TO AT LEAST ONCE EVERY 5 YEARS.

R 325.10704 Collection and analysis of samples for coliform bacteria generally.

Rule 704. (1) Suppliers of ~~water of type I and type II public water supplies~~ COMMUNITY AND NONCOMMUNITY WATER SYSTEMS shall collect samples and cause analyses to be made for coliform bacteria to determine compliance with the state drinking water standards.

(2) The department may require samples to be collected and analyzed for coliform bacteria for type III public water ~~supplies~~ SYSTEMS at a frequency as may be ~~deemed~~ CONSIDERED necessary by the department.

R 325.10706 Collection and analysis of samples for coliform bacteria; ~~type II public water supply~~ NONCOMMUNITY WATER SYSTEM.

Rule 706. (1) A supplier of ~~water of a type II public water supply~~ A NONCOMMUNITY WATER SYSTEM shall collect samples for total coliform analysis at sites~~, which are~~ representative of the water throughout the distribution system according to a written sample siting plan that is subject to department review and revision.

(2) A supplier of ~~water for a type II water supply~~ A NONCOMMUNITY WATER SYSTEM shall monitor ~~according to the following provisions~~ AS FOLLOWS:

(a) A ~~type II water system that serves~~ SUPPLIER OF A NONCOMMUNITY WATER SYSTEM SERVING more than 1,000 ~~persons~~ PEOPLE shall ~~be~~ monitor~~ed~~ at the same frequency as a like-sized ~~type I public water supply~~ COMMUNITY WATER SYSTEM as specified in table 1 of ~~this part~~ R 325.10705.

(b) A supplier of ~~water for a type II water supply that uses a source of water which requires complete treatment pursuant to the provisions of R 325.11004(1)~~ A NONCOMMUNITY WATER SYSTEM FOR WHICH COMPLETE TREATMENT IS REQUIRED UNDER R 325.10611(1) shall monitor at the same frequency ~~that~~ AS a like-sized ~~type I public water supply is monitored~~ COMMUNITY WATER SYSTEM as specified ~~by~~ IN table 1 of ~~this part~~ R 325.10705.

(c) A supplier of ~~water of a type II water supply which uses~~ A SYSTEM USING only groundwater NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER and ~~which serves less~~ SERVING FEWER than 1,001 ~~persons~~ PEOPLE shall monitor each calendar quarter that the system provides water to the public.

(3) The department, based on a satisfactory sanitary survey of a ~~type II public water supply~~ NONCOMMUNITY WATER SYSTEM serving ~~less~~ FEWER than 1,001 ~~persons~~ PEOPLE with a protected groundwater source, may vary the frequency of sampling. However, ~~for systems that serve less than 1,001 persons beginning June 29, 1994,~~ the frequency shall ~~not be less than~~ BE AT LEAST once per year. The decision to reduce the monitoring frequency shall be in writing.

R 325.10707b General notification requirements for total coliform and fecal coliform/Escherichia coli (E. coli).

Rule 707b. (1) EXCEPT AS NOTED IN THIS RULE, A SUPPLIER OF A PUBLIC WATER SYSTEM SHALL REPORT TO THE DEPARTMENT THE RESULTS OF THE ANALYSES AS REQUIRED IN R 325.10734(1).

(2) A SUPPLIER THAT HAS FAILED TO COMPLY WITH A COLIFORM MONITORING REQUIREMENT, INCLUDING THE SANITARY SURVEY REQUIREMENT, SHALL REPORT THE MONITORING VIOLATION TO THE DEPARTMENT WITHIN 10 DAYS AFTER THE SYSTEM DISCOVERS THE VIOLATION.

(3) A supplier ~~of water~~ of a public water ~~supply which has~~ SYSTEM THAT exceeded the MCL for total coliform ~~specified in~~ UNDER R 325.10602 shall report the violation to the department not later than the end of the next business day after the supplier learns of the violation~~ and shall notify the public pursuant to the provisions of R 325.10403, R 325.10405, and R 325.10406~~.
~~(2)~~ (4) If fecal coliform or E. coli are determined to be present in any routine or repeat sample, the ~~owner of the water supply~~ SUPPLIER shall notify the department by the end of the day that the supplier ~~of water~~ is notified of the test result, unless the supplier ~~of water~~ is notified of the result after the department office is closed, in which case the supplier ~~of water~~ shall notify the department before the end of the next business day.

R 325.10719 Rescinded ~~SOCs; reporting and notification~~.
~~Rule 719. (1) If the result of an analysis made pursuant to the provisions of R 325.10717 indicates that the concentration of a regulated pesticide or herbicide exceeds the MCL, the supplier of water shall report to the division within 7 days and shall initiate 3 additional analyses at the same sampling point within 1 month.~~
~~(2) When the average of 4 analyses that are made pursuant to the provisions of subrule (1) of this rule for the chemical in question exceeds the MCL, the supplier of water shall notify the division within 48 hours and shall give notice to the public pursuant to the provisions of part 4 of these rules. Monitoring after public notification shall be at a frequency determined by the department and shall continue until the MCL has not been exceeded in 2 successive samples or until a monitoring schedule, as a condition to a variance, exemption, or enforcement action, becomes effective.~~

R 325.10719a Total trihalomethane; collection and analysis of samples generally.
Rule 719a. (1) ~~Type I public water supplies which serve a population of 10,000 or more individuals and which add a disinfectant to the water as a normal part of the treatment process~~ SYSTEMS SUBJECT TO THIS RULE, AS SPECIFIED IN SUBRULE (4) OF THIS RULE, shall collect samples and cause analyses to be performed for TOTAL TRIHALOMETHANES (TTHM) levels to determine compliance with the ~~state drinking water standards~~ MCL OF 0.10 MG/L UNDER R325.10610(1). For ~~those~~ public water ~~supplies~~ SYSTEMS purchasing finished water from another public water ~~supply~~ SYSTEM, the department may modify the monitoring requirements for TTHM in accordance with R 325.10733.
(2) Based on knowledge of the source and treatment, the department may require certain ~~type I~~ public water ~~supplies~~ SYSTEMS serving ~~less~~ FEWER than 10,000 ~~individuals~~ PEOPLE to monitor for TTHM as deemed necessary.
(3) The minimum number of samples required to be taken by public water ~~supplies~~ SYSTEMS for total trihalomethane analysis shall be based on the number of treatment plants used by the public water ~~supply~~ SYSTEM, except that multiple wells drawing water from a single aquifer shall, with department approval, be considered 1 treatment plant for determining the minimum number of samples. All samples required to be taken within an established sampling frequency shall be taken within a 24-hour period.
(4) THIS RULE, R 325.10719b, R 325.10719c, AND R 325.10719d APPLY TO COMMUNITY WATER SYSTEMS USING ONLY GROUND WATER NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER THAT ADD A DISINFECTANT IN ANY PART OF THE TREATMENT PROCESS AND SERVE A POPULATION OF 10,000 OR MORE UNTIL DECEMBER 31, 2003. AFTER DECEMBER 31, 2003, THIS RULE, R 325.10719b, R 325.10719c, AND R 325.10719d NO LONGER APPLY.

R 325.10719d Total trihalomethane; reporting and notification.

Rule 719d. (1) The results of all analyses performed to determine TTHM concentration pursuant to this part shall be reported to the department ~~within 10 days following the month of record~~ UNDER R 325.10734(1). ~~All s~~Samples collected for TTHM analyses UNDER R 325.10719a shall be used for determining compliance with the ~~provisions of this part~~ TOTAL TRIHALOMETHANE MCL OF 0.10 MG/L IN R 325.10610, unless the analytical results are invalidated for technical reasons.
(2) ~~Compliance with the MCL for TTHM shall be determined based on a running annual average of quarterly samples collected by the public water supply as prescribed in R 325.10719b or R 325.10719c(1).~~ If the average of samples covering any 12-month period exceeds the MCL, the supplier of water shall report to the ~~division within 48 hours pursuant to this part~~ DEPARTMENT UNDER R325.10734(2) ~~and shall notify the public pursuant to part 4 of these rules~~. Monitoring after public notification shall be at a frequency designated by the department.
(3) THIS RULE APPLIES AS SET FORTH IN R 325.10719a(4).

R 325.10719e DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS; MONITORING REQUIREMENTS.
RULE 719e. (1) THIS RULE APPLIES AS SET FORTH IN R 325.10610. ALL OF THE FOLLOWING PROVISIONS ARE GENERAL MONITORING REQUIREMENTS:
(a) SUPPLIERS SHALL TAKE ALL SAMPLES DURING NORMAL OPERATING CONDITIONS.
(b) SUPPLIERS MAY CONSIDER MULTIPLE WELLS DRAWING WATER FROM A SINGLE AQUIFER AS 1 TREATMENT PLANT FOR DETERMINING THE MINIMUM NUMBER OF TTHM AND HAA5 SAMPLES REQUIRED, WITH DEPARTMENT APPROVAL. THIS APPROVAL WILL BE GRANTED IN WRITING IF THE SUPPLIER CAN DEMONSTRATE THAT THE FINISHED WATER QUALITY CHARACTERISTIC OF ALL ENTRY POINTS TO THE DISTRIBUTION SYSTEM DRAWING FROM THE IDENTIFIED AQUIFER, WHETHER SERVED BY MULTIPLE WELLS OR A SINGLE WELL, ARE SIMILAR AND ARE EXPECTED TO REACT ALIKE IN TERMS OF THE FORMATION OF DISINFECTION BYPRODUCTS. TO DEMONSTRATE THIS, THE SUPPLIER SHALL ARRANGE FOR A STUDY TO BE PREPARED BY AN INDIVIDUAL OR FIRM CONSIDERED QUALIFIED TO PERFORM THIS WORK, SUCH AS A HYDROGEOLOGIST, GEOLOGIST, OR ENGINEER. ALL OF THE FOLLOWING PROVISIONS APPLY TO THE STUDY:
(i) THE STUDY SHALL CONSIDER WELL CONSTRUCTION AND GEOLOGY, INCLUDING ALL OF THE FOLLOWING:
(A) WELL LOCATIONS MARKED ON A TOPOGRAPHICAL MAP.
(B) WELL DEPTHS.
(C) WELL LOGS SHOWING GEOLOGICAL STRATA, IDENTIFING WATER PRODUCTION ZONES, SCREENED OR SLOTTED AREAS, AND GROUTING OF THE ANNULAR SPACE.
(D) STATIC WATER LEVELS.
(E) AQUIFER STUDIES AND MAPS.
(F) TREATMENT APPLIED.
(ii) THE STUDY SHALL CONSIDER WATER CHARACTERISTICS AND CHEMISTRY OF EACH WELL INCLUDING ALL OF THE FOLLOWING:
(A) FIELD PH.
(B) FIELD TEMPERATURES.
(C) SPECIFIC CONDUCTIVITY.
(D) TOTAL ORGANIC CARBON.

(E) ANALYSES OF COMMON IONS WITH A CALCULATED CATION/ION BALANCE, SUCH AS CALCIUM, MAGNESIUM, IRON, MANGANESE, SODIUM SULFATE, ALKALINITY, AND CHLORIDE.

(iii) THE DEPARTMENT MAY REQUIRE DISINFECTION BYPRODUCTS MONITORING AT VARIOUS ENTRY POINTS TO THE DISTRIBUTION SYSTEM TO DETERMINE IF THE STUDY CONCLUSIONS ARE CORRECT.

(IV) RESULTS OF DISINFECTION BYPRODUCTS MONITORING MAY BE USED INSTEAD OF THE STUDY IF ALL ENTRY POINTS TO THE DISTRIBUTION SYSTEM DRAWING FROM THE IDENTIFIED AQUIFER SHOW THAT THE LEVELS ARE BELOW THE MCLS.

(c) FAILURE TO MONITOR IN ACCORDANCE WITH THE MONITORING PLAN REQUIRED UNDER SUBRULE (5) OF THIS RULE IS A MONITORING VIOLATION.

(d) FAILURE TO MONITOR WILL BE TREATED AS A VIOLATION FOR THE ENTIRE PERIOD COVERED BY THE ANNUAL AVERAGE WHERE COMPLIANCE IS BASED ON A RUNNING ANNUAL AVERAGE OF MONTHLY OR QUARTERLY SAMPLES OR AVERAGES AND THE SUPPLIER'S FAILURE TO MONITOR MAKES IT IMPOSSIBLE TO DETERMINE COMPLIANCE WITH MCLS OR MRDLS.

(e) SUPPLIERS SHALL USE ONLY DATA COLLECTED UNDER THIS RULE TO QUALIFY FOR REDUCED MONITORING.

(2) ALL OF THE FOLLOWING PROVISIONS ARE MONITORING REQUIREMENTS FOR DISINFECTION BYPRODUCTS:

(a) ALL OF THE FOLLOWING PROVISIONS ARE TTHM AND HAA5 MONITORING REQUIREMENTS:

(i) SUPPLIERS SHALL CONDUCT ROUTINE MONITORING AT THE FREQUENCY INDICATED IN TABLE 1 OF THIS RULE:

TABLE 1 ROUTINE MONITORING FREQUENCY FOR TTHM AND HAA5

TYPE OF SYSTEM	MINIMUM MONITORING FREQUENCY	SAMPLE LOCATION IN THE DISTRIBUTION SYSTEM
SUBPART H SYSTEM SERVING 10,000 OR MORE PEOPLE.	4 WATER SAMPLES PER QUARTER PER TREATMENT PLANT.	NOT LESS THAN 25% OF ALL SAMPLES COLLECTED EACH QUARTER AT LOCATIONS REPRESENTING MAXIMUM RESIDENCE TIME. REMAINING SAMPLES TAKEN AT LOCATIONS REPRESENTATIVE OF AT LEAST AVERAGE RESIDENCE TIME IN THE DISTRIBUTION SYSTEM AND REPRESENTING THE ENTIRE DISTRIBUTION SYSTEM, TAKING INTO ACCOUNT THE NUMBER OF PERSONS SERVED, DIFFERENT SOURCES OF WATER, AND DIFFERENT TREATMENT METHODS[1].
SUBPART H SYSTEM SERVING FROM 500 TO 9,999 PEOPLE.	1 WATER SAMPLE PER QUARTER PER TREATMENT PLANT.	LOCATIONS REPRESENTING MAXIMUM RESIDENCE TIME[1].
SUBPART H SYSTEM SERVING FEWER THAN 500 PEOPLE.	1 SAMPLE PER YEAR PER TREATMENT PLANT DURING MONTH OF WARMEST WATER TEMPERATURE.	LOCATIONS REPRESENTING MAXIMUM RESIDENCE TIME[1]. IF THE SAMPLE (OR AVERAGE OF ANNUAL SAMPLES, IF MORE THAN 1 SAMPLE IS TAKEN) EXCEEDS THE MCL, THE SYSTEM SHALL INCREASE MONITORING TO 1 SAMPLE PER TREATMENT PLANT PER QUARTER, TAKEN AT A POINT REFLECTING THE MAXIMUM RESIDENCE TIME IN THE DISTRIBUTION SYSTEM, UNTIL THE SYSTEM MEETS CRITERIA IN PARAGRAPH (iv) OF THIS SUBDIVISION.
SYSTEM USING ONLY GROUND WATER NOT UNDER DIRECT INFLUENCE OF SURFACE WATER USING CHEMICAL DISINFECTANT AND SERVING 10,000 OR MORE PEOPLE.	1 WATER SAMPLE PER QUARTER PER TREATMENT PLANT[2.]	LOCATIONS REPRESENTING MAXIMUM RESIDENCE TIME[1].
SYSTEM USING ONLY GROUND WATER NOT UNDER DIRECT INFLUENCE OF SURFACE WATER USING CHEMICAL DISINFECTANT AND SERVING FEWER THAN 10,000 PEOPLE.	1 SAMPLE PER YEAR PER TREATMENT PLANT[2] DURING MONTH OF WARMEST WATER TEMPERATURE.	LOCATIONS REPRESENTING MAXIMUM RESIDENCE TIME[1]. IF THE SAMPLE (OR AVERAGE OF ANNUAL SAMPLES, IF MORE THAN 1 SAMPLE IS TAKEN) EXCEEDS THE MCL, THE SYSTEM SHALL INCREASE MONITORING TO 1 SAMPLE PER TREATMENT PLANT PER QUARTER, TAKEN AT A POINT REFLECTING THE MAXIMUM RESIDENCE TIME IN THE DISTRIBUTION SYSTEM, UNTIL THE SYSTEM MEETS CRITERIA IN PARAGRAPH (iv) OF THIS SUBDIVISION.

[1] IF A SUPPLIER ELECTS TO SAMPLE MORE FREQUENTLY THAN THE MINIMUM REQUIRED, NOT LESS THAN 25% OF ALL SAMPLES COLLECTED EACH QUARTER, INCLUDING THOSE TAKEN IN EXCESS OF THE REQUIRED FREQUENCY, SHALL BE TAKEN AT LOCATIONS THAT REPRESENT THE MAXIMUM RESIDENCE TIME OF THE WATER IN THE DISTRIBUTION SYSTEM. THE REMAINING SAMPLES SHALL BE TAKEN AT LOCATIONS REPRESENTATIVE OF AT LEAST AVERAGE RESIDENCE TIME IN THE DISTRIBUTION SYSTEM.

[2] MULTIPLE WELLS DRAWING WATER FROM A SINGLE AQUIFER MAY BE CONSIDERED 1 TREATMENT PLANT FOR DETERMINING THE MINIMUM NUMBER OF SAMPLES REQUIRED, WITH DEPARTMENT APPROVAL.

(ii) SUPPLIERS MAY REDUCE MONITORING, EXCEPT AS OTHERWISE PROVIDED, UNDER TABLE 2 OF THIS RULE:
TABLE 2 REDUCED MONITORING FREQUENCY FOR TTHM AND HAA5

IF THE SYSTEM IS A...	THE SUPPLIER MAY REDUCE MONITORING IF THE SUPPLIER HAS MONITORED AT LEAST 1 YEAR AND THE...	TO THIS LEVEL
SUBPART H SYSTEM SERVING 10,000 OR MORE PEOPLE WHICH HAS A SOURCE WATER ANNUAL AVERAGE TOC LEVEL, BEFORE ANY TREATMENT, THAT IS LESS THAN OR EQUAL TO 4.0 MG/L.	TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.040 MG/L AND HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.030 MG/L.	1 SAMPLE PER TREATMENT PLANT PER QUARTER AT DISTRIBUTION SYSTEM LOCATION REFLECTING MAXIMUM RESIDENCE TIME.
SUBPART H SYSTEM SERVING FROM 500 TO 9,999 PEOPLE WHICH HAS A SOURCE WATER ANNUAL AVERAGE TOC LEVEL, BEFORE ANY TREATMENT, THAT IS LESS THAN OR EQUAL TO 4.0 MG/L.	TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.040 MG/L AND HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.030 MG/L.	1 SAMPLE PER TREATMENT PLANT PER YEAR AT DISTRIBUTION SYSTEM LOCATION REFLECTING MAXIMUM RESIDENCE TIME DURING MONTH OF WARMEST WATER TEMPERATURE. NOTE: ANY SUBPART H SYSTEM SERVING FEWER THAN 500 PEOPLE MAY NOT REDUCE ITS MONITORING TO LESS THAN 1 SAMPLE PER TREATMENT PLANT PER YEAR.
SYSTEM USING ONLY GROUND WATER NOT UNDER DIRECT INFLUENCE OF SURFACE WATER USING CHEMICAL DISINFECTANT AND SERVING 10,000 OR MORE PEOPLE.	TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.040 MG/L AND HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.030 MG/L.	1 SAMPLE PER TREATMENT PLANT PER YEAR AT DISTRIBUTION SYSTEM LOCATION REFLECTING MAXIMUM RESIDENCE TIME DURING MONTH OF WARMEST WATER TEMPERATURE.
SYSTEM USING ONLY GROUND WATER NOT UNDER DIRECT INFLUENCE OF SURFACE WATER USING CHEMICAL DISINFECTANT AND SERVING FEWER THAN 10,000 PEOPLE.	TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.040 MG/L AND HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.030 MG/L FOR 2 CONSECUTIVE YEARS, OR TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.020 MG/L AND HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.015 MG/L FOR 1 YEAR.	1 SAMPLE PER TREATMENT PLANT PER 3 YEAR MONITORING CYCLE AT DISTRIBUTION SYSTEM LOCATION REFLECTING MAXIMUM RESIDENCE TIME DURING MONTH OF WARMEST WATER TEMPERATURE, WITH THE 3-YEAR CYCLE BEGINNING ON JANUARY 1 FOLLOWING QUARTER IN WHICH SYSTEM QUALIFIES FOR REDUCED MONITORING.

(iii) SUPPLIERS OF SYSTEMS ON A REDUCED MONITORING SCHEDULE MAY REMAIN ON THAT REDUCED SCHEDULE AS LONG AS THE AVERAGE OF ALL SAMPLES TAKEN IN THE YEAR, FOR SYSTEMS MONITORING QUARTERLY, OR THE RESULT OF THE SAMPLE, FOR SYSTEMS MONITORING NO MORE FREQUENTLY THAN ANNUALLY, IS NOT MORE THAN 0.060 MG/L AND 0.045 MG/L FOR TTHM AND HAA5, RESPECTIVELY. SUPPLIERS OF SYSTEMS THAT DO NOT MEET THESE LEVELS SHALL RESUME MONITORING AT THE FREQUENCY IDENTIFIED IN THE "MINIMUM MONITORING FREQUENCY" COLUMN OF TABLE 1 OF THIS RULE, IN THE QUARTER IMMEDIATELY FOLLOWING THE MONITORING PERIOD IN WHICH THE SYSTEM EXCEEDS 0.060 MG/L AND 0.045 MG/L FOR TTHM AND HAA5, RESPECTIVELY. FOR SYSTEMS USING ONLY GROUNDWATER NOT UNDER THE DIRECT INFLUENCE OF SURFACE WATER AND SERVING FEWER THAN 10,000 PEOPLE, IF EITHER THE TTHM ANNUAL AVERAGE IS GREATER THAN 0.080 MG/L OR THE HAA5 ANNUAL AVERAGE IS GREATER THAN 0.060 MG/L, THE SUPPLIER SHALL INCREASE MONITORING TO THAT IDENTIFIED IN THE "SAMPLE LOCATION IN THE DISTRIBUTION SYSTEM" COLUMN OF TABLE 1 OF THIS RULE IN THE QUARTER IMMEDIATELY FOLLOWING THE MONITORING PERIOD IN WHICH THE SYSTEM EXCEEDS 0.080 MG/L OR 0.060 MG/L FOR TTHM OR HAA5, RESPECTIVELY.

(iv) SUPPLIERS OF SYSTEMS ON INCREASED MONITORING MAY RETURN TO ROUTINE MONITORING IF, AFTER AT LEAST 1 YEAR OF MONITORING, THE TTHM ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.060 MG/L AND THE HAA5 ANNUAL AVERAGE IS LESS THAN OR EQUAL TO 0.045 MG/L.

(b) SUPPLIERS OF COMMUNITY AND NONTRANSIENT NONCOMMUNITY WATER SYSTEMS ADDING CHLORINE DIOXIDE SHALL CONDUCT MONITORING FOR CHLORITE UNDER ALL OF THE FOLLOWING PROVISIONS.

(i) ALL OF THE FOLLOWING PROVISIONS ARE ROUTINE MONITORING REQUIREMENTS:

(A) EACH DAY, SUPPLIERS SHALL TAKE SAMPLES AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM. FOR ANY DAILY SAMPLE THAT EXCEEDS THE CHLORITE MCL, THE SUPPLIER SHALL TAKE ADDITIONAL SAMPLES IN THE DISTRIBUTION SYSTEM THE FOLLOWING DAY AT THE LOCATIONS REQUIRED BY PARAGRAPH (ii) OF THIS SUBDIVISION, IN ADDITION TO THE SAMPLE REQUIRED AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM.

(B) EACH MONTH, SUPPLIERS SHALL TAKE A 3-SAMPLE SET IN THE DISTRIBUTION SYSTEM. THE SUPPLIER SHALL TAKE 1 SAMPLE AT EACH OF THE FOLLOWING LOCATIONS:

(1) NEAR THE FIRST CUSTOMER.

(2) AT A LOCATION REPRESENTATIVE OF AVERAGE RESIDENCE TIME.

(3) AT A LOCATION REFLECTING MAXIMUM RESIDENCE IN THE DISTRIBUTION SYSTEM.

ANY ADDITIONAL ROUTINE SAMPLING SHALL BE CONDUCTED IN THE SAME MANNER, AS 3-SAMPLE SETS, AT THE SPECIFIED LOCATIONS. THE SUPPLIER MAY USE THE RESULTS OF ADDITIONAL MONITORING CONDUCTED UNDER

PARAGRAPH (ii) OF THIS SUBDIVISION TO MEET THE REQUIREMENT FOR MONITORING IN THIS PARAGRAPH.

(ii) ON EACH DAY FOLLOWING A ROUTINE SAMPLE MONITORING RESULT THAT EXCEEDS THE CHLORITE MCL AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM, THE SUPPLIER SHALL TAKE 3 CHLORITE DISTRIBUTION SYSTEM SAMPLES AT EACH OF THE FOLLOWING LOCATIONS:

(A) AS CLOSE TO THE FIRST CUSTOMER AS POSSIBLE.

(B) IN A LOCATION REPRESENTATIVE OF AVERAGE RESIDENCE TIME.

(C) AS CLOSE TO THE END OF THE DISTRIBUTION SYSTEM AS POSSIBLE, REFLECTING MAXIMUM RESIDENCE TIME IN THE DISTRIBUTION SYSTEM.

(iii) CHLORITE MONITORING AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM REQUIRED BY PARAGRAPH (i)(A) OF THIS SUBDIVISION MAY NOT BE REDUCED. CHLORITE MONITORING IN THE DISTRIBUTION SYSTEM REQUIRED BY PARAGRAPH (i)(B) OF THIS SUBDIVISION MAY BE REDUCED TO 1 3-SAMPLE SET PER QUARTER AFTER 1 YEAR OF MONITORING WHERE NO INDIVIDUAL CHLORITE SAMPLE TAKEN IN THE DISTRIBUTION SYSTEM UNDER PARAGRAPH (i)(B) OF THIS SUBDIVISION HAS EXCEEDED THE CHLORITE MCL AND THE SUPPLIER HAS NOT BEEN REQUIRED TO CONDUCT MONITORING UNDER PARAGRAPH (ii) OF THIS SUBDIVISION. THE SYSTEM MAY REMAIN ON THE REDUCED MONITORING SCHEDULE UNTIL EITHER ANY OF THE 3 INDIVIDUAL CHLORITE SAMPLES TAKEN QUARTERLY IN THE DISTRIBUTION SYSTEM UNDER PARAGRAPH (i)(B) OF THIS SUBDIVISION EXCEEDS THE CHLORITE MCL OR THE SUPPLIER IS REQUIRED TO CONDUCT MONITORING UNDER PARAGRAPH (ii) OF THIS SUBDIVISION, AT WHICH TIME THE SUPPLIER SHALL REVERT TO ROUTINE MONITORING.

(c) SUPPLIERS USING OZONE SHALL MONITOR FOR BROMATE BY TAKING 1 SAMPLE PER MONTH AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM FOR EACH TREATMENT PLANT IN THE SYSTEM USING OZONE. MONITORING MAY NOT BE REDUCED.

(3) BOTH OF THE FOLLOWING PROVISIONS ARE MONITORING REQUIREMENTS FOR DISINFECTANT RESIDUALS:

(a) SUPPLIERS OF COMMUNITY AND NONTRANSIENT NONCOMMUNITY WATER SYSTEMS ADDING CHLORINE OR CHLORAMINES SHALL MEASURE THE RESIDUAL DISINFECTANT LEVEL IN THE DISTRIBUTION SYSTEM AT THE SAME POINT IN THE DISTRIBUTION SYSTEM AND AT THE SAME TIME AS TOTAL COLIFORMS ARE SAMPLED, AS SPECIFIED IN R 325.10705 AND R 325.10706. MONITORING MAY NOT BE REDUCED.

(b) ALL OF THE FOLLOWING PROVISIONS ARE CHLORINE DIOXIDE MONITORING REQUIREMENTS:

(i) SUPPLIERS OF COMMUNITY, NONTRANSIENT NONCOMMUNITY, AND TRANSIENT NONCOMMUNITY WATER SYSTEMS THAT USE CHLORINE DIOXIDE SHALL MONITOR FOR CHLORINE DIOXIDE BY TAKING DAILY SAMPLES AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM. FOR ANY DAILY SAMPLE THAT EXCEEDS THE MRDL, THE SUPPLIER SHALL TAKE SAMPLES IN THE DISTRIBUTION SYSTEM THE FOLLOWING DAY AT THE LOCATIONS REQUIRED BY

PARAGRAPH (ii) OF THIS SUBDIVISION, IN ADDITION TO THE SAMPLE REQUIRED AT THE ENTRANCE TO THE DISTRIBUTION SYSTEM.

(ii) ON EACH DAY FOLLOWING A ROUTINE SAMPLE MONITORING RESULT THAT EXCEEDS THE MRDL, THE SUPPLIER IS REQUIRED TO TAKE 3 CHLORINE DIOXIDE DISTRIBUTION SYSTEM SAMPLES. IF CHLORINE DIOXIDE OR CHLORAMINES ARE USED TO MAINTAIN A DISINFECTANT RESIDUAL IN THE DISTRIBUTION SYSTEM, OR IF CHLORINE IS USED TO MAINTAIN A DISINFECTANT RESIDUAL IN THE DISTRIBUTION SYSTEM AND THERE ARE NO DISINFECTION ADDITION POINTS AFTER THE ENTRANCE TO THE DISTRIBUTION SYSTEM, THAT IS, NO BOOSTER CHLORINATION, THE SUPPLIER SHALL TAKE 3 SAMPLES AS CLOSE TO THE FIRST CUSTOMER AS POSSIBLE, AT INTERVALS OF AT LEAST 6 HOURS. IF CHLORINE IS USED TO MAINTAIN A DISINFECTANT RESIDUAL IN THE DISTRIBUTION SYSTEM AND THERE ARE 1 OR MORE DISINFECTION ADDITION POINTS AFTER THE ENTRANCE TO THE DISTRIBUTION SYSTEM, THAT IS, BOOSTER CHLORINATION, THE SUPPLIER SHALL TAKE 1 SAMPLE AT EACH OF THE FOLLOWING LOCATIONS:

(A) AS CLOSE TO THE FIRST CUSTOMER AS POSSIBLE.

(B) IN A LOCATION REPRESENTATIVE OF AVERAGE RESIDENCE TIME.

(C) AS CLOSE TO THE END OF THE DISTRIBUTION SYSTEM AS POSSIBLE, REFLECTING MAXIMUM RESIDENCE TIME IN THE DISTRIBUTION SYSTEM.

(iii) CHLORINE DIOXIDE MONITORING MAY NOT BE REDUCED.

(4) MONITORING REQUIREMENTS FOR DISINFECTION BYPRODUCT PRECURSORS (DBPP) ARE AS FOLLOWS:

(a) SUPPLIERS OF SUBPART H SYSTEMS USING CONVENTIONAL FILTRATION SHALL MONITOR EACH TREATMENT PLANT FOR TOC NOT LATER THAN THE POINT OF COMBINED FILTER EFFLUENT TURBIDITY MONITORING AND REPRESENTATIVE OF THE TREATED WATER. SUPPLIERS SHALL ALSO MONITOR FOR TOC IN THE SOURCE WATER BEFORE ANY TREATMENT AT THE SAME TIME AS MONITORING FOR TOC IN THE TREATED WATER. THESE SAMPLES (SOURCE WATER AND TREATED WATER) ARE REFERRED TO AS “PAIRED SAMPLES.” AT THE SAME TIME AS THE SOURCE WATER SAMPLE IS TAKEN, SUPPLIERS SHALL MONITOR FOR ALKALINITY IN THE SOURCE WATER BEFORE ANY TREATMENT. SUPPLIERS SHALL TAKE 1 PAIRED SAMPLE AND 1 SOURCE WATER ALKALINITY SAMPLE PER MONTH PER PLANT AT A TIME REPRESENTATIVE OF NORMAL OPERATING CONDITIONS AND INFLUENT WATER QUALITY.

(b) SUPPLIERS OF SUBPART H SYSTEMS WITH AN AVERAGE TREATED WATER TOC OF LESS THAN 2.0 MG/L FOR 2 CONSECUTIVE YEARS, OR LESS THAN 1.0 MG/L FOR 1 YEAR, MAY REDUCE MONITORING FOR BOTH TOC AND ALKALINITY TO 1 PAIRED SAMPLE AND 1 SOURCE WATER ALKALINITY SAMPLE PER PLANT PER QUARTER. THE SUPPLIER SHALL REVERT TO ROUTINE MONITORING IN THE MONTH FOLLOWING THE QUARTER WHEN THE ANNUAL AVERAGE TREATED WATER TOC IS GREATER THAN OR EQUAL TO 2.0 MG/L.

(5) SUPPLIERS SUBJECT TO THIS RULE SHALL DEVELOP AND IMPLEMENT A MONITORING PLAN. THE SUPPLIER SHALL MAINTAIN THE PLAN AND MAKE IT AVAILABLE FOR INSPECTION BY THE DEPARTMENT AND THE GENERAL PUBLIC

NOT MORE THAN 30 DAYS FOLLOWING THE APPLICABLE COMPLIANCE DATES IN SUBRULE (1) OF THIS RULE. SUPPLIERS OF SUBPART H SYSTEMS SERVING MORE THAN 3,300 PEOPLE SHALL SUBMIT A COPY OF THE MONITORING PLAN TO THE DEPARTMENT NOT LATER THAN THE DATE OF THE FIRST REPORT REQUIRED UNDER R 325.10719f. AT A MINIMUM, THE PLAN SHALL INCLUDE ALL OF THE FOLLOWING ELEMENTS:

(a) SPECIFIC LOCATIONS AND SCHEDULES FOR COLLECTING SAMPLES FOR PARAMETERS INCLUDED IN R 325.10610, R 325.10610a, R 325.10610b, R325.10610c, OR THIS RULE.

(b) THE METHOD THE SUPPLIER WILL USE TO CALCULATE COMPLIANCE WITH MCLS, MRDLS, AND TREATMENT TECHNIQUES.

(c) IF APPROVED FOR MONITORING AS A CONSECUTIVE SYSTEM, OR IF PROVIDING WATER TO A CONSECUTIVE SYSTEM, UNDER THE PROVISIONS OF R 325.10733, THE SAMPLING PLAN SHALL REFLECT THE ENTIRE DISTRIBUTION SYSTEM.

R 325.10719f DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS; REPORTING AND RECORDKEEPING.

RULE 719f. (1) SUPPLIERS REQUIRED TO MONITOR UNDER R 325.10719e SHALL REPORT TO THE DEPARTMENT UNDER THIS RULE. SUPPLIERS REQUIRED TO SAMPLE QUARTERLY OR MORE FREQUENTLY SHALL REPORT TO THE DEPARTMENT WITHIN 10 DAYS AFTER THE END OF EACH QUARTER IN WHICH SAMPLES WERE COLLECTED, NOTWITHSTANDING THE PROVISIONS OF R 325.10734. SUPPLIERS REQUIRED TO SAMPLE LESS FREQUENTLY THAN QUARTERLY SHALL REPORT TO THE DEPARTMENT WITHIN 10 DAYS AFTER THE END OF EACH MONITORING PERIOD IN WHICH SAMPLES WERE COLLECTED.

(2) SUPPLIERS SHALL REPORT DISINFECTION BYPRODUCTS INFORMATION SPECIFIED IN THE FOLLOWING TABLE:

IF SUPPLIER MONITORS UNDER R 325.10719e(2) FOR...	*SUPPLIER SHALL REPORT...*
(a) TTHM AND HAA5 ON A QUARTERLY OR MORE FREQUENT BASIS	(i) THE NUMBER OF SAMPLES TAKEN DURING THE LAST QUARTER. (ii) THE LOCATION, DATE, AND RESULT OF EACH SAMPLE TAKEN DURING THE LAST QUARTER. (iii) THE AVERAGE OF ALL SAMPLES TAKEN IN THE LAST QUARTER. (iv) THE ANNUAL AVERAGE OF THE QUARTERLY AVERAGES OF THIS SECTION FOR THE LAST 4 QUARTERS. (v) WHETHER, BASED ON R 325.10610b(2)(a), THE MCL WAS VIOLATED.
(b) TTHM AND HAA5 LESS FREQUENTLY THAN QUARTERLY, BUT AT LEAST ANNUALLY	(i) THE NUMBER OF SAMPLES TAKEN DURING THE LAST YEAR. (ii) THE LOCATION, DATE, AND RESULT OF EACH SAMPLE TAKEN DURING THE LAST MONITORING PERIOD. (iii) THE AVERAGE OF ALL SAMPLES TAKEN OVER THE LAST YEAR. (iv) WHETHER, BASED ON R 325.10610b(2)(a), THE MCL WAS VIOLATED.
(c) TTHM AND HAA5 LESS FREQUENTLY THAN ANNUALLY	(i) THE LOCATION, DATE, AND RESULT OF THE EACH SAMPLE TAKEN. (ii) WHETHER, BASED ON R 325.10610b(2)(a), THE MCL WAS VIOLATED.

IF SUPPLIER MONITORS UNDER R 325.10719e(2) FOR...	*SUPPLIER SHALL REPORT...*
(d) CHLORITE	(i) THE NUMBER OF ENTRY POINT SAMPLES TAKEN EACH MONTH FOR THE LAST 3 MONTHS. (ii) THE LOCATION, DATE, AND RESULT OF EACH SAMPLE (BOTH ENTRY POINT AND DISTRIBUTION SYSTEM) TAKEN DURING THE LAST QUARTER. (iii) FOR EACH MONTH IN THE REPORTING PERIOD, THE AVERAGE OF ALL SAMPLES TAKEN IN EACH 3-SAMPLES SET TAKEN IN THE DISTRIBUTION SYSTEM. (iv) WHETHER, BASED ON R 325.10610b(2)(c), THE MCL WAS VIOLATED, IN WHICH MONTH, AND HOW MANY TIMES IT WAS VIOLATED EACH MONTH.
(e) BROMATE	(i) THE NUMBER OF SAMPLES TAKEN DURING THE LAST QUARTER. (ii) THE LOCATION, DATE, AND RESULT OF EACH SAMPLE TAKEN DURING THE LAST QUARTER. (iii) THE AVERAGE OF THE MONTHLY AVERAGES OF ALL SAMPLES TAKEN IN THE LAST YEAR. (iv) WHETHER, BASED ON R 325.10610b(2)(b), THE MCL WAS VIOLATED.

(3) SUPPLIERS SHALL REPORT DISINFECTANT INFORMATION SPECIFIED IN THE FOLLOWING TABLE:

IF SUPPLIER MONITORS UNDER R 325.10719e(3) FOR...	*SUPPLIER SHALL REPORT...*
(a) CHLORINE OR CHLORAMINES	(i) THE NUMBER OF SAMPLES TAKEN DURING EACH MONTH OF THE LAST QUARTER. (ii) THE MONTHLY AVERAGE OF ALL SAMPLES TAKEN IN EACH MONTH FOR THE LAST 12 MONTHS. (iii) THE AVERAGE OF ALL MONTHLY AVERAGES FOR THE LAST 12 MONTHS. (iv) WHETHER, BASED ON R 325.10610b(3)(a), THE MRDL WAS VIOLATED.
(b) CHLORINE DIOXIDE	(i) THE DATES, RESULTS, AND LOCATIONS OF SAMPLES TAKEN DURING THE LAST QUARTER. (ii) WHETHER, BASED ON R 325.10610(3)(b), THE MRDL WAS VIOLATED. (iii) WHETHER THE MRDL WAS EXCEEDED IN ANY 2 CONSECUTIVE DAILY SAMPLES AND WHETHER THE RESULTING VIOLATION WAS A TIER 1 OR TIER 2 VIOLATION.

(4) SUPPLIERS SHALL REPORT DISINFECTION BYPRODUCT PRECURSORS AND ENHANCED COAGULATION OR ENHANCED SOFTENING INFORMATION SPECIFIED IN THE FOLLOWING TABLE:

IF SUPPLIER MONITORS MONTHLY OR QUARTERLY FOR TOC UNDER R 325.10719e(4)…	*SUPPLIER SHALL REPORT...*
(a) AND IS REQUIRED TO MEET THE ENHANCED COAGULATION OR ENHANCED SOFTENING REQUIREMENTS IN R 325.10610c(2)(b) OR (c)	(i) THE NUMBER OF PAIRED SAMPLES TAKEN DURING THE LAST QUARTER. (ii) THE LOCATION, DATE, AND RESULT OF EACH PAIRED SAMPLE AND ASSOCIATED ALKALINITY TAKEN DURING THE LAST QUARTER. (iii) FOR EACH MONTH IN THE REPORTING PERIOD THAT PAIRED SAMPLES WERE TAKEN, THE AVERAGE OF THE PERCENT REDUCTION OF TOC FOR EACH PAIRED SAMPLE AND THE REQUIRED TOC PERCENT REMOVAL. (iv) CALCULATIONS FOR DETERMINING COMPLIANCE WITH THE TOC PERCENT REMOVAL REQUIREMENTS, AS PROVIDED IN R 325.10610c(3)(a). (v) WHETHER THE SYSTEM IS IN COMPLIANCE WITH THE ENHANCED COAGULATION OR ENHANCED SOFTENING PERCENT REMOVAL REQUIREMENTS IN R 325.10610c(2) FOR THE LAST 4 QUARTERS.

IF SUPPLIER MONITORS MONTHLY OR QUARTERLY FOR TOC UNDER R 325.10719e(4)…	*SUPPLIER SHALL REPORT…*
(b) AND MEETS 1 OR MORE OF THE ALTERNATIVE COMPLIANCE CRITERIA IN R 325.10610c(1)(b) OR (c)	(i) THE NUMBER OF PAIRED SAMPLES TAKEN DURING THE LAST QUARTER. (ii) THE LOCATION, DATE, AND RESULT OF EACH PAIRED SAMPLE AND ASSOCIATED ALKALINITY TAKEN DURING THE LAST QUARTER. (iii) THE ALTERNATIVE COMPLIANCE CRITERION THAT THE SYSTEM IS USING. (iv) THE RUNNING ANNUAL AVERAGE BASED ON MONTHLY AVERAGES, OR QUARTERLY SAMPLES, OF SOURCE WATER TOC FOR SYSTEMS MEETING A CRITERION IN R 325.10610c(1)(b)(i) OR (iii) OR OF TREATED WATER TOC FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(b)(ii). (v) THE RUNNING ANNUAL AVERAGE BASED ON MONTHLY AVERAGES, OR QUARTERLY SAMPLES, OF SOURCE WATER SUVA FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(b)(v) OR OF TREATED WATER SUVA FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(b)(vi). (vi) THE RUNNING ANNUAL AVERAGE OF SOURCE WATER ALKALINITY FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(b)(iii) AND OF TREATED WATER ALKALINITY FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(c)(i). (vii) THE RUNNING ANNUAL AVERAGE FOR BOTH TTHM AND HAA5 FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(b)(iii). (viii) THE RUNNING ANNUAL AVERAGE OF THE AMOUNT OF MAGNESIUM HARDNESS REMOVAL, AS CALCIUM CARBONATE, IN MG/L, FOR SYSTEMS MEETING THE CRITERION IN R 325.10610c(1)(c)(ii). (ix) WHETHER THE SYSTEM IS IN COMPLIANCE WITH THE PARTICULAR ALTERNATIVE COMPLIANCE CRITERION IN R 325.10610c(1)(b) OR (c).

R 325.10720 Collecting, measuring, and reporting of samples for turbidity and residual disinfectant monitoring; effective date of subrules (2) to (10). FILTRATION AND DISINFECTION; FILTRATION SAMPLING REQUIREMENTS

Rule 720. (1) Suppliers of SUBPART H SYSTEMS SHALL MONITOR UNDER THIS RULE TO DETERMINE COMPLIANCE WITH R 325.10611a AND R 325.10611b, EXCEPT FOR THE SYSTEMS NOTED IN SUBRULE (4) OF THIS RULE. water of all type I and type II public water supplies utilizing surface water sources shall collect samples and perform measurements for turbidity at representative entry points to the water distribution system. Measurements for turbidity shall be used to determine compliance with state drinking water standards until June 29, 1993. After June 29, 1993, turbidity measurements shall be used to determine compliance with treatment technique requirements. This rule applies to all suppliers of water that utilize sources of water which require complete treatment.

(2) ALL OF THE FOLLOWING PROVISIONS ARE TURBIDITY MONITORING REQUIREMENTS: This subrule and subrules (3) to (10) of this rule are effective June 29, 1993. A supplier of water that utilizes a source of water which requires complete treatment shall collect samples and perform measurements for turbidity at a representative entry point to the water distribution system to determine compliance with the treatment technique requirements pursuant to the provisions of R 325.11004(4).

(3) A supplier of water that utilizes a source of water which requires complete treatment shall collect and analyze samples at regular intervals at least once every 4 hours while the treatment plant is in operation to determine compliance with the treatment technique requirements pursuant to the provisions of R 325.11004(4).

(a) SUPPLIERS SHALL COLLECT SAMPLES AND PERFORM MEASUREMENTS FOR TURBIDITY AT LOCATIONS REPRESENTATIVE OF FILTERED WATER AT REGULAR INTERVALS AT LEAST ONCE EVERY 4 HOURS WHILE THE TREATMENT PLANT IS IN OPERATION.

(4) (b) If any single measurement is more than 5.0 turbidity units NTU FOR SYSTEMS SERVING FEWER THAN 10,000 PEOPLE, OR 1 NTU FOR SYSTEMS SERVING 10,000 OR MORE PEOPLE, a supplier of water shall notify the division DEPARTMENT as soon as possible, but not later than the end of the next business day 24 HOURS AFTER THE EXCEEDANCE IS KNOWN.

(5) (c) A public water supplier may substitute continuous turbidity monitoring for grab sample monitoring if the continuous measurement is validated for accuracy on a regular basis using a protocol approved by the division DEPARTMENT. Readings taken from a continuous recording turbidimeter at regular intervals at least once every 4 hours may be used to determine compliance with the treatment technique requirements pursuant to the provisions of R 325.11004(4) UNDER R 325.10611b. THE TURBIDIMETER SHALL BE CALIBRATED USING THE PROCEDURE SPECIFIED BY THE MANUFACTURER.

(d) SUPPLIERS OF SYSTEMS SERVING 10,000 OR MORE PEOPLE AND USING CONVENTIONAL OR DIRECT FILTRATION SHALL CONDUCT CONTINUOUS MONITORING OF TURBIDITY FOR EACH INDIVIDUAL FILTER AND SHALL CALIBRATE TURBIDIMETERS USING THE PROCEDURE SPECIFIED BY THE MANUFACTURER. SUPPLIERS SHALL RECORD THE RESULTS OF INDIVIDUAL FILTER MONITORING EVERY 15 MINUTES.

(e) IF THERE IS A FAILURE IN THE CONTINUOUS TURBIDITY MONITORING EQUIPMENT DESCRIBED IN SUBDIVISION (d) OF THIS SUBRULE, THE SUPPLIER SHALL CONDUCT GRAB SAMPLING EVERY 4 HOURS INSTEAD OF CONTINUOUS MONITORING, BUT FOR NOT MORE THAN 5 WORKING DAYS AFTER THE FAILURE OF THE EQUIPMENT.

(6) (3) ALL OF THE FOLLOWING PROVISIONS ARE DISINFECTANT RESIDUAL MONITORING REQUIREMENTS AT THE ENTRY POINTS TO THE DISTRIBUTION SYSTEM:

(a) A supplier of water that utilizes a source of water which requires complete treatment and that serves SUPPLIERS OF SYSTEMS SERVING more than 3,300 people shall monitor for residual disinfectant concentration at an entry point to the distribution system on a continuous basis.

(7) (b) A supplier of water that utilizes a source of water which requires complete treatment and that serves less SUPPLIERS OF SYSTEMS SERVING FEWER than 3,301 people shall monitor for residual disinfectant concentration at an entry point to the distribution system at a frequency to be established by the department. The required frequency shall be SET FORTH IN TABLE 1 OF THIS RULE, AND, IF MORE THAN 1 SAMPLE IS REQUIRED PER DAY, SUPPLIERS SHALL COLLECT SAMPLES AT TIMES EVENLY SPACED THROUGHOUT THE OPERATIONAL DAY based on the anticipated source water quality, but the monitoring shall be at a frequency specified in table 7.5, which reads as follows.

Table 7.51 RESIDUAL DISINFECTANT CONCENTRATION SAMPLING FREQUENCIES

System Size by Population	Samples Per Day[a]
500 or fewer persons PEOPLE	1
501 to 1,000 persons PEOPLE	2
1,001 to 2,500 persons PEOPLE	3
2,501 to 3,300 persons PEOPLE	4

[a] The day's samples cannot be taken at the same time.

(8) When disinfection is required other than for a system where complete treatment is required, a supplier of water shall monitor for residual disinfectant concentration at locations and frequencies determined by the department.

(9) (c) A supplier of water that utilizes a source of water which requires complete treatment SUPPLIERS shall maintain a residual disinfectant concentration entering the distribution system of not less than 0.2 milligrams per liter. If the residual disinfectant concentration drops below this level at any time, the supplier of water shall notify the department as soon as possible, but not later than the end of the next business day. In addition, the supplier of water shall notify the department by the end of the next business day whether or not the residual disinfectant concentration was restored to not less than 0.2 milligrams per liter within 4 hours.

(10) (4) When disinfection is required, a supplier of water shall measure disinfectant residual concentrations on the distribution system at the same points in the distribution system and at such time as samples are collected for coliform analysis. The department may require additional distribution residual monitoring to demonstrate operation adequate to protect the public health. AFTER DECEMBER 31, 2003, THIS SUBRULE NO LONGER APPLIES AND SYSTEMS SUBJECT TO THIS SUBRULE RULE SHALL COMPLY WITH THE DISINFECTANT RESIDUAL MONITORING REQUIREMENTS UNDER R 325.10719e(3).

R 325.10720a FILTRATION AND DISINFECTION; REPORTING AND RECORDKEEPING.

RULE 720a. (1) SUPPLIERS REQUIRED TO MONITOR UNDER R 325.10720 SHALL COMPLY WITH REPORTING AND RECORDKEEPING REQUIREMENTS SPECIFIED IN R 325.11502 AND SHALL REPORT TO THE DEPARTMENT THE INFORMATION REQUIRED IN THIS RULE WITHIN 10 DAYS AFTER THE END OF EACH MONTH THE SYSTEM SERVES WATER TO THE PUBLIC.

(2) SUPPLIERS SHALL REPORT TURBIDITY MEASUREMENTS REQUIRED UNDER R 325.10611b AND SHALL INCLUDE ALL OF THE FOLLOWING INFORMATION:

(a) THE TOTAL NUMBER OF TURBIDITY MEASUREMENTS TAKEN DURING THE MONTH REPRESENTATIVE OF FILTERED WATER.

(b) THE NUMBER AND PERCENTAGE OF TURBIDITY MEASUREMENTS TAKEN DURING THE MONTH REPRESENTATIVE OF FILTERED WATER THAT ARE LESS THAN OR EQUAL TO THE TURBIDITY LIMITS UNDER R 325.10611b.

(c) THE DATE AND VALUE OF ANY SAMPLES TAKEN DURING THE MONTH REPRESENTATIVE OF FILTERED WATER THAT EXCEED 1 NTU FOR SYSTEMS USING CONVENTIONAL FILTRATION, DIRECT FILTRATION, OR MEMBRANE FILTRATION, OR THAT EXCEED THE MAXIMUM LEVEL SET BY THE DEPARTMENT UNDER R 325.10611b(3).

(3) SUPPLIERS SHALL REPORT THAT THEY HAVE CONDUCTED INDIVIDUAL FILTER TURBIDITY MONITORING UNDER R 325.10720(2)(d) AND (e). SUPPLIERS SHALL REPORT INDIVIDUAL TURBIDITY MEASUREMENTS ONLY IF MEASUREMENTS DEMONSTRATE 1 OR MORE OF THE CONDITIONS IN SUBDIVISIONS (a) TO (d) OF THIS SUBRULE. SYSTEMS THAT USE LIME SOFTENING MAY APPLY TO THE DEPARTMENT FOR ALTERNATIVE EXCEEDANCE LEVELS FOR THE LEVELS SPECIFIED IN SUBDIVISIONS (a) TO (d) OF THIS SUBRULE IF THEY CAN DEMONSTRATE THAT HIGHER TURBIDITY LEVELS IN INDIVIDUAL FILTERS ARE DUE TO LIME CARRYOVER ONLY AND NOT DUE TO DEGRADED FILTER PERFORMANCE. INDIVIDUAL FILTER MONITORING REPORTING REQUIREMENTS ARE AS FOLLOWS:

(a) FOR ANY INDIVIDUAL FILTER THAT HAS A MEASURED TURBIDITY LEVEL OF MORE THAN 1.0 NTU IN 2 CONSECUTIVE MEASUREMENTS TAKEN 15 MINUTES APART, THE SUPPLIER SHALL REPORT THE FILTER NUMBER, THE TURBIDITY MEASUREMENT, AND THE DATE OR DATES ON WHICH THE EXCEEDANCE OCCURRED. IN ADDITION, THE SUPPLIER SHALL EITHER PRODUCE A FILTER PROFILE FOR THE FILTER WITHIN 7 DAYS OF THE EXCEEDANCE AND REPORT THAT THE PROFILE HAS BEEN PRODUCED, OR REPORT THE OBVIOUS REASON FOR THE EXCEEDANCE.

(b) FOR ANY INDIVIDUAL FILTER THAT HAS A MEASURED TURBIDITY LEVEL OF MORE THAN 0.5 NTU IN 2 CONSECUTIVE MEASUREMENTS TAKEN 15 MINUTES APART AT THE END OF THE FIRST 4 HOURS OF CONTINUOUS FILTER OPERATION AFTER THE FILTER HAS BEEN BACKWASHED OR OTHERWISE TAKEN OFFLINE, THE SUPPLIER SHALL REPORT THE FILTER NUMBER, THE TURBIDITY, AND THE DATE OR DATES ON WHICH THE EXCEEDANCE OCCURRED. IN ADDITION, THE SUPPLIER SHALL EITHER PRODUCE A FILTER PROFILE FOR THE FILTER WITHIN 7 DAYS OF THE EXCEEDANCE AND REPORT THAT THE PROFILE HAS BEEN PRODUCED, OR REPORT THE OBVIOUS REASON FOR THE EXCEEDANCE.

(c) FOR ANY INDIVIDUAL FILTER THAT HAS A MEASURED TURBIDITY LEVEL OF MORE THAN 1.0 NTU IN 2 CONSECUTIVE MEASUREMENTS TAKEN 15 MINUTES APART AT ANY TIME IN EACH OF 3 CONSECUTIVE MONTHS, THE SUPPLIER SHALL REPORT THE FILTER NUMBER, THE TURBIDITY MEASUREMENT, AND THE DATE OR DATES ON WHICH THE EXCEEDANCE OCCURRED. IN ADDITION, THE SUPPLIER SHALL CONDUCT A SELF-ASSESSMENT OF THE FILTER WITHIN 14 DAYS OF THE EXCEEDANCE AND REPORT THAT THE SELF-ASSESSMENT WAS CONDUCTED. THE SELF-ASSESSMENT SHALL CONSIST OF AT LEAST ALL OF THE FOLLOWING COMPONENTS:

(i) ASSESSMENT OF FILTER PERFORMANCE; DEVELOPMENT OF A FILTER PROFILE.

(ii) IDENTIFICATION AND PRIORITIZATION OF FACTORS LIMITING FILTER PERFORMANCE.

(iii) ASSESSMENT OF THE APPLICABILITY OF CORRECTIONS.

(iv) PREPARATION OF A FILTER SELF-ASSESSMENT REPORT.

(d) FOR ANY INDIVIDUAL FILTER THAT HAS A MEASURED TURBIDITY LEVEL OF MORE THAN 2.0 NTU IN 2 CONSECUTIVE MEASUREMENTS TAKEN 15 MINUTES APART AT ANY TIME IN EACH OF 2 CONSECUTIVE MONTHS, THE SUPPLIER SHALL REPORT THE FILTER NUMBER, THE TURBIDITY MEASUREMENT, AND THE DATE OR DATES ON WHICH THE EXCEEDANCE OCCURRED. IN ADDITION, THE SUPPLIER SHALL ARRANGE FOR THE

CONDUCT OF A COMPREHENSIVE PERFORMANCE EVALUATION BY THE DEPARTMENT OR A THIRD PARTY APPROVED BY THE DEPARTMENT NO LATER THAN 30 DAYS FOLLOWING THE EXCEEDANCE AND HAVE THE EVALUATION COMPLETED AND SUBMITTED TO THE DEPARTMENT NOT LATER THAN 90 DAYS FOLLOWING THE EXCEEDANCE.

(4) THE SUPPLIER SHALL CONSULT WITH THE DEPARTMENT AS SOON AS PRACTICAL, BUT NOT LATER THAN 24 HOURS AFTER THE EXCEEDANCE IS KNOWN, IF THE TURBIDITY LEVEL OF REPRESENTATIVE SAMPLES OF FILTERED WATER AT ANY TIME EXCEEDS EITHER OF THE FOLLOWING LEVELS:

(a) 1 NTU IN A SYSTEM USING CONVENTIONAL FILTRATION, DIRECT FILTRATION, OR MEMBRANE FILTRATION, OR AT ANY TIME EXCEEDS 5 NTU IN A SYSTEM USING DIATOMACEOUS EARTH OR SLOW SAND FILTRATION.

(b) THE MAXIMUM LEVEL SET BY THE DEPARTMENT UNDER R 325.10611b(3) FOR SYSTEMS USING FILTRATION TECHNOLOGIES OTHER THAN CONVENTIONAL FILTRATION, DIRECT FILTRATION, MEMBRANE FILTRATION, SLOW SAND FILTRATION, OR DIATOMACEOUS EARTH FILTRATION.

R 325.10721 Rescinded Turbidity resampling; reporting and notification; effective date of rule.

Rule 721. (1) This rule is effective until June 29, 1993.

(2) If the result of a turbidity measurement pursuant to the provisions of R 325.10720 indicates that the MCL has been exceeded, the sampling and measurement shall be confirmed by resampling as soon as possible, preferably within 1 hour. The repeat sample shall be the sample used for the purpose of calculating the daily average and the monthly average.

(3) Except as noted in subrule (2) of this rule, the daily average and monthly average shall be determined from the normally scheduled turbidity measurements and shall not include special purpose samples.

(4) If the daily average of turbidity measurements exceeds the MCL, the supplier of water shall notify the division within 48 hours. If the monthly average of the daily turbidity measurements is more than the MCL or if the average of turbidity measurements taken on 2 consecutive days is more than 5 turbidity units, a supplier of water shall report to the division within 48 hours and shall make public notification as prescribed by part 4 of these rules.

PROPOSED ADMINISTRATIVE RULES

ORR # 2002-024

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019, and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.11002 and R 325.11008 of the Michigan Administrative Code are amended and R 325.11004 and R 325.11009 of the Code are rescinded as follows:

PART 10. TREATMENT SYSTEMS AND PUMPING FACILITIES

R 325.11002 Applicability; approval of deviations from minimum standards and requirements.
Rule 1002. (1) The provisions of this part apply to ~~all public water supplies that utilize sources of water requiring complete treatment~~ SUBPART H SYSTEMS, to certain other treatment systems, and to all water pumping facilities. These rules are standards and requirements which shall be considered by the department when issuing permits or approvals for waterworks systems.
(2) Deviations from the minimum standards and requirements prescribed by this part may be approved by the department upon a showing by an owner of a public water supply that the deviation will not adversely affect public health.
(3) Any deviations to the requirements for ~~complete~~ treatment of water sources shall not be in conflict with THESE RULES ~~the provisions of 40 C.F.R. part 141 (June 29, 1989). For purposes of this subrule, the provisions of 40 C.F.R. part 141 (June 29, 1989) are adopted by reference. Copies of the adopted material may be obtained from the United States Environmental Protection Agency, Region V, Water Supply Branch, 230 South Dearborn Street, Chicago, Illinois 60604, at no cost, or from the Michigan Department of Public Health, Division of Water Supply, 3423 North Martin Luther King, Jr. Blvd., Lansing, Michigan 48909, at no cost~~.

R 325.11004 Rescinded. ~~Treatment technique requirements for surface water sources and other sources.~~
~~Rule 1004. (1) A public water source shall be in compliance with the requirements of R 325.10807, R 325.10808, R 325.10812, R 325.10813, R 325.10816, R 325.10817, R 325.10818, R 325.10819, R 325.10820, and R 325.10822, shall demonstrate a safe microbiological water quality history, and may be~~

~~required to demonstrate stability in other measurements of water quality or the source shall be subjected to complete treatment.~~

~~(2) The department may grant a deviation from the provisions of subrule (1) of this rule where a treatment system which includes filtration is demonstrated to be capable of producing finished water that meets the state drinking water standards. A system for which a deviation has been granted is considered a source of water that requires complete treatment for purposes of determining compliance with other rules.~~

~~(3) All treatment systems for public water supplies that use a surface water source or any source of water that requires complete treatment shall provide sufficient disinfectant contact time at the rated treatment capacity before the water enters the distribution system to assure adequate disinfection. Beginning June 29, 1993, each public water system for which complete treatment is required shall provide disinfection treatment as follows:~~

~~(a) The disinfection treatment shall be sufficient to ensure that the total treatment processes of that system achieve not less than 99.9% (3-Log) inactivation or the removal of Giardia lamblia cysts and not less than 99.99% (4-Log) inactivation or the removal of viruses.~~

~~(b) The residual disinfectant concentration in the water entering the distribution system, measured as specified in the approved analytical technique, shall not be less than 0.2 milligrams per liter for more than 4 hours.~~

~~(c) The residual disinfectant concentration in the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, as specified in the approved analytical technique, shall not be undetectable in more than 5% of the samples each month for any 2 consecutive months that the system serves water to the public. Water in the distribution system with a heterotrophic bacteria concentration less than or equal to 500 per milliliter, measured as heterotrophic plate count (HPC) as specified in the approved analytical technique, is deemed to have a detectable disinfectant residual for purposes of determining compliance with this subdivision.~~

~~(d) If the department determines, based on site-specific considerations, that a system does not have means for having a sample transported and analyzed for HPC by a certified laboratory under the requisite time and temperature conditions specified in the approved analytical technique and that the system is providing adequate disinfection in the distribution system, then the requirements of subdivision (c) of this subrule do not apply.~~

~~(4) The requirements of this subrule become effective June 29, 1993. The level of representative samples from the plant tap shall be taken at regular intervals and shall not be more than 5 NTU. For systems that use conventional filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in not less than 95% of the measurements taken each month, except that if the department determines that the system is capable of achieving a Giardia lamblia removal rate of not less than 99.9% or the inactivation of Giardia lamblia cysts at some turbidity level higher than 0.5 NTU in not less than 95% of the measurements taken each month, the department may substitute this higher turbidity limit for that system. However, a turbidity limit shall not be more than 1 NTU in more than 5% of the samples taken each month. For systems that use slow sand filtration or diatomaceous earth filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 1 NTU in not less than 95% of the measurements taken each month; however, if the department determines, for a slow sand filtration system, that there is no significant interference with disinfection at a higher turbidity level, the department may substitute this higher turbidity limit for that system. A public water system may use a filtration technology other than conventional filtration, slow sand filtration, or diatomaceous earth filtration if the supplier demonstrates to the department, using pilot plant studies or other means, that the alternative filtration technology, in combination with disinfection treatment, consistently achieves a 99.9% removal rate of, or the inactivation of, Giardia lamblia cysts and a 99.99% removal rate of, or the inactivation of, viruses. The system shall meet the turbidity requirements of this subrule pertaining to slow sand filtration.~~

~~(5) The owner or operator of a public water supply that is not excluded from the complete treatment requirements of subrule (1) of this rule shall provide complete treatment by June 29, 1993, or within 18 months~~

~~of the determination by the department that complete treatment is required, whichever is later. The supplier shall provide interim disinfection and monitoring as deemed necessary by the department. The supplier shall collect at least 1 sample near the first service connection for each day that the turbidity level of the source water is more than 1 NTU. The sample shall be analyzed for total coliform. When 1 or more turbidity measurements in any day are more than 1 NTU, the supplier shall collect the sample for coliform analysis within 24 hours of the first determination that a turbidity measurement is more than 1 NTU. Sample results from the coliform monitoring specified in this subrule shall be included in determining compliance with the total coliform standard.~~
~~(6) Disinfection shall be provided for public water supplies that employ phosphate treatment systems or certain iron removal treatment systems.~~

R 325.11008 Complete treatment system; design and operation requirements.
Rule 1008. (1) A minimum of 2 units shall be provided for each treatment process for coagulation, sedimentation, and filtration.
(2) A sufficient primary coagulant dose shall be added to create a settleable or filterable floc at all times that a ~~complete treatment plant~~ CONVENTIONAL FILTRATION or direct filtration plant is in operation.
(3) Essential chemical systems for the application of disinfectants, primary coagulants, and other chemicals, as required by the department, shall be equipped to provide service at the maximum allowable treatment rate with the largest unit removed from service.
(4) Equipment provided for disinfection required under subrule (3) of this rule shall be capable of treatment at the rated treatment capacity with the largest unit removed from service.
(5) Application points for disinfection shall be provided, or be available, at all of the following locations:
(a) Before coagulation.
(b) Immediately preceding filtration.
(c) Immediately following filtration.
(d) Immediately before entry of finished water into the distribution system.
(6) Each unit or element of a complete treatment system shall be provided with a means to remove it from service without interrupting the treatment process. However, a complete bypass of the coagulation, sedimentation, or filtration processes is prohibited.
(7) Each unit or element of a complete treatment system shall be provided with a means to drain and with overflow control sufficient to prevent flooding of the facility.
(8) ~~There shall be no~~ Common walls between finished water and water of lesser quality ARE PROHIBITED.
(9) Each complete treatment system shall be provided with a means to measure the volume and rate of raw water supplied and finished water produced.
(10) A complete treatment system shall be protected from the highest recorded flood elevation or the 100-year flood elevation, whichever is greater.
(11) Components of a complete treatment system which are essential for the protection of the public health and which are required for the production of drinking water on a continuous basis shall be protected from flooding.

R 325.11009 Rescinded. ~~Treatment system operator.~~
~~Rule 1009. An operator certified in accordance with part 19 of these rules shall be present at all times during operation of the treatment processes at a complete treatment system or other treatment system using a surface water source.~~

PROPOSED ADMINISTRATIVE RULES

ORR # 2002-025

DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

SUPPLYING WATER TO THE PUBLIC

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

(By authority conferred on the department of environmental quality by sections 5, 7, 14, and 19 of 1976 PA 399, MCL 325.1005, 325.1007, 325.1014, and 325.1019 and Executive Reorganization Order No. 1996-1, MCL 330.3101)

R 325.11502, R 325.11505a, and R 325.11506 of the Michigan Administrative Code are amended, and R 325.11503 of the Code is rescinded as follows:

PART 15. OPERATION REPORTS AND RECORDKEEPING

R 325.11502 Monthly operation reports required from suppliers of water employing treatment.
Rule 1502. (1) A supplier of water of a ~~type I public water supply~~ COMMUNITY WATER SYSTEM where treatment is employed~~,~~ or of a ~~type II public water supply~~ NONCOMMUNITY WATER SYSTEM where treatment is employed for public health purposes~~,~~ shall prepare an operation report on a form provided by the department for each month of operation. The report shall identify areas where data entry is required ~~pursuant to~~ UNDER R 325.10719e, R 325.10719f, R 325.10720, AND R 325.10720a and shall include all of the following information:
(a) General operation data, including turbidity determinations.
(b) A summary of samples analyzed, including distribution system sampling and residual disinfectant concentration.
(c) Information on daily treatment system pumpage.
(d) Information on chemical application.
(e) Analyses of general parameters relating to the quality of the treated drinking water.
(2) The operation report shall be submitted to the ~~division~~ DEPARTMENT during the month following the month for which the operation report was prepared, ~~except that results of bacteriological analyses and turbidity measurements shall be submitted as required by R 325.11503~~ UNLESS OTHERWISE NOTED IN PART 7 OF THESE RULES.
~~(3) The department may waive the requirement that the owner of a type I public water supply submit a monthly operation report.~~

R 325.11503 Rescinded. ~~Submission of results of sample analyses or measurements.~~

~~Rule 1503. (1) A supplier of water of a public water supply which monitors for bacteriological contamination, turbidity, or residual disinfectant concentration shall prepare and submit, to the department, the results of sample analyses or measurements on a form provided by the department as required by part 7 of these rules. Sample results shall not be submitted to the department more than 40 days from the date of analysis or measurement of the sample.~~
~~(2) Sample results of all contaminants that do not meet the MCLs shall be reported to the department in accordance with the provisions of part 7 of these rules.~~

R 325.11505a Submission of C * T calculations.
Rule 1505a. A supplier of water who employs a disinfectant shall, within 6 months of a written request from the department, submit a determination of the C*T calculations. The supplier of water shall submit ~~such~~ THE supporting data as necessary for the department to determine compliance with the provisions of ~~R 325.11004(3)(a)~~ R 325.10611a(2)(a).

R 325.11506 Retention of records.
Rule 1506. (1) A supplier of ~~water of a type I or type II public water supply~~ A COMMUNITY OR NONCOMMUNITY WATER SYSTEM 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 pursuant to the provisions of part 7 of these rules, WHICH shall be kept for not less than 5 years.
(b) Records of chemical analyses that are required pursuant to the provisions of part 7 of these rules, WHICH shall be kept for not less than 10 years.
(c) Records of turbidity analyses that are required pursuant to the provisions of part 7 of these rules, WHICH shall be kept for not less than ~~5~~ 3 years.
(d) Records of radiological analyses that are required pursuant to the provisions of 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 pursuant to the provisions of R 325.10604f(2) to (4), WHICH shall be retained for not less than 12 years.
(2) Actual laboratory reports for chemical, bacteriological, turbidity, and radiological analyses shall be kept; however, the analyses data may be transferred to tabular summaries if all of the following information is included:
(a) The date, place, and time of sampling and the name of the person who collected the sample.
(b) Identification of the sample as a routine distribution system sample, check sample, raw or treated water sample, or other special purpose sample.
(c) The date of the analysis.
(d) The laboratory and the person who was responsible for performing the analysis.
(e) The analytical technique or method used.
(f) The results of the analysis.
(3) Records of action taken by the supplier to correct violations of the state drinking water standards shall be kept for not less than 3 years after the last action taken with respect to the particular violation.
(4) Copies of any written reports, summaries, or communications which relate to sanitary surveys of the public water supply and which were conducted by the public water supply itself, by a private consultant, by the division, 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.

NOTICE OF PUBLIC HEARING

ORR # 2002-019,020, 021, 021, 022, 023, 024, 025

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION

The Michigan Department of Environmental Quality (DEQ), Drinking Water and Radiological Protection Division (DWRPD), will conduct a public hearing on proposed amendments to the administrative rules promulgated pursuant to Sections 5, 7, 14, and 19 of the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399); R 325.10102, R 325.10103, R 325.10104, R 325.10105, R 325.10106, R 325.10108, R 325.10109, R 325.10308b, R 325.10401, R 325.10401a, R 325.10402, R 325.10403, R 325.10404, R 325.10405, R 325.10406, R 325.10407, R 325.10408, R 325.10408a, R 325.10408b, R 325.10409, R 325.10411, R 325.10412, R 325.10413, R 325.10414, R 325.10415, R 325.10416, R 325.10417, R 325.10418, R 325.10419, R 325.10420, R 325.10604a, R 325.10605, R 325.10610, R 325.10610a, R 325.10610b, R 325.10610c, R 325.10611, R 325.10611a, R 325.10611b, R 325.10702, R 325.10704, R 325.10706, R 325.10707b, R 325.10719, R 325.10719a, R 325.10719d, R 325.10719e, R 325.10719f, R 325.10720, R 325.10720a, R 325.10721, R 325.11002, R 325.11004, R 325.11008, R 325.11009, R 325.11502, R 325.11503, R 325.11505a, and R 325.11506. These amendments establish maximum residual levels for disinfectants and maximum contaminant levels for certain disinfection byproducts and address disinfectant precursor removal, monitoring, and reporting. They improve control of microbial pathogens in drinking water, including *Cryptosporidium*, through increased filtration performance. Additionally, they revise the minimum requirements that public water systems must meet regarding the form, manner, frequency, and content of public notification.

The public hearing will be held on September 5, 2002, at 1:00 p.m., in the Con-Con A&B Conference Room, Atrium Level, Constitution Hall, 525 W. Allegan, Lansing, Michigan.

Copies of the proposed rules (ORR Numbers 2002-019EQ, 2002-020EQ, 2002-021EQ, 2002-022EQ, 2002-023EQ, 2002-024EQ, and 2002-025EQ) can be downloaded from the Internet through the Office of Regulatory Reform at http://www.michigan.gov/orr. From that site click on MI Admin Code. Click on Numeric. Click on Rule Range R 308.1 – R 325.77115. Scroll down to R 325.10101 – R 325.10115, Supplying Water to the Public - Part 1. General Provisions. Click on the Proposed Revision Info button and then click on the Revision Text button to view the proposed rules. Click twice on Back to repeat the download process for Parts 3, 4, 6, 7, 10, and 15. Copies of the rules may also be obtained by contacting the Lansing office at:

Field Operations Section
Drinking Water and Radiological Protection Division
Michigan Department of Environmental Quality
P.O. Box 30630
Lansing, Michigan 48909-8130
Phone: 517-241-1318
Fax: 517-241-1328
E-Mail: reckd@michigan.gov

All interested persons are invited to attend and present their views. It is requested that all statements be submitted in writing for the hearing record. Anyone unable to attend may submit comments in writing to the above address. Written comments must be received by September 9, 2002.

Persons needing accommodations for effective participation in the meeting should contact the DWRPD at 517-241-1318 one week in advance to request mobility, visual, hearing, or other assistance.

This notice of public hearing is given in accordance with Sections 41 and 42 of Michigan's Administrative Procedures Act, 1969 PA 306, as amended, being Sections 24.241 and 24.242 of the Michigan Compiled Laws. Administration of the rules is by authority conferred on the Director of the DEQ by Sections 5 and 16 of Act 399 and Executive Order 1996-1. These rules will become effective seven days after filing with the Secretary of State.

_____

Flint C. Watt, P.E., Chief
Drinking Water and Radiological Protection Division

CORRECTION OF OBVIOUS ERRORS IN PUBLICATION

MCL 24.256(1) states in part:

"Sec. 56. (1) The office of regulatory reform shall perform the editorial work for the Michigan register and the Michigan Administrative Code and its annual supplement. The classification, arrangement, numbering, and indexing of rules shall be under the ownership and control of the office of regulatory reform, shall be uniform, and shall conform as nearly as practicable to the classification, arrangement, numbering, and indexing of the compiled laws. The office of regulatory reform may correct in the publications obvious errors in rules when requested by the promulgating agency to do so…"

CORRECTION OF OBVIOUS ERRORS IN PUBLICATION

August 6, 2002

Mr. Brian Devlin, Director
Office of Regulatory Reform
111 S. Capitol; Romney Building
Lansing, MI 48933

Dear Brian:

The Child Care Center Rules became effective July 1, 2000. The three following rules contain obvious errors and are highlighted below in bold print. Language to be removed has also been stricken.

R 400.5116 Indoor activity space.
Rule 116. (1) Except as provided in subrule (4) of this rule, for each child between the ages of birth and 2 ½ years, a center shall have a minimum of 50 square feet of indoor activity space for use by, and accessible to, the child.
(2) Except as provided in subrule ~~(3)~~ (4) of this rule, for each child over 2 ½ years of age, a center shall have a minimum of 35 square feet of indoor activity space for use by, and accessible to, the child.
(3) In determining activity space under subrules (1) and (2) of this rule, the activity space shall not include any of the following:
(a) Hallways.
(b) Bathrooms.
(c) Reception and office areas.
(d) Kitchens.
(e) Storage areas and cloakrooms.
(f) Areas used exclusively for resting, sleeping, or eating.
(4) If the center is an employment-based on-site day care or a public school-based day care, then the center shall provide an adequate amount of indoor activity space for use by children. The center shall ensure that activity space is accessible to each child.

R 400.5209 Diapering; toilet training plan.
Rule 209. (1) Diapers shall be disposable or from a commercial diaper service. If a child's health condition necessitates that disposable diapers or diapers from a commercial service~~s~~ cannot be used, then an alternative arrangement may be made according to the parent's or a licensed physician's instructions.

R 400.5905 Premises.

Rule 905. (1) A center shall be located on land that provides good natural drainage or that is properly drained.

(2) Stairs, walkways, ramps, landings, and porches shall meet the following requirements:

~~(A)~~ (a) If elevated, shall have barriers to prevent falls and handrails designed and constructed for use by children.

~~(B)~~ (b) Shall be maintained in a safe condition relative to the accumulation of water, ice, or snow, and shall have nonslip surfacing.

~~(C)~~ (c) Landings shall be located outside exit doors where steps or stairs are necessary and shall be at least as wide as the swing of the door. Per MCL 24.256, we are requesting this correction be published in the *Michigan Register* and the Michigan Administrative Code. If you have any questions about this transmittal, please contact me at 241-4580.

Sincerely,

R. Thomas Martin, Director
CIS, Office of Policy and Legislative Affairs

EXECUTIVE ORDERS
AND
EXECUTIVE REORGANIZATION ORDERS

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. 2002 - 14

NEW E-MICHIGAN OFFICE

NEW E-MICHIGAN ADVISORY COUNCIL

DEPARTMENT OF INFORMATION TECHNOLOGY

EXECUTIVE REORGANIZATION

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

WHEREAS, Article V, Section 2, of the Constitution of the state of Michigan of 1963 empowers the Governor to make changes in the organization of the Executive Branch or in the assignment of functions among its units which he considers necessary for efficient administration; and

WHEREAS, the new e-Michigan Office was created to expand the delivery of trusted online cross-agency government services through the award-winning Michigan.gov Internet portal; and

WHEREAS, the Department of Information Technology was created to promote a unified approach to information technology management across all executive branch agencies and is now ready to implement that goal; and

WHEREAS, the functions, duties and responsibilities currently assigned to the new e-Michigan Office can be more effectively carried out by Department of Information Technology; and

WHEREAS, it is necessary in the interests of efficient administration and effectiveness of government to effect changes in the organization of the Executive Branch of government.

NOW, THEREFORE, I, John Engler, Governor of the state of Michigan, pursuant to the powers vested in me by the Constitution of the state of Michigan of 1963 and the laws of the state of Michigan, do hereby order the following:

I. DEFINITIONS

As used herein:

A. "Department of Information Technology" means the principal department of state government created by Executive Order 2001-3, being Section 18.41 of the Michigan Compiled Laws.

B. "New e-Michigan Office" means the Type I agency established within the Department of Information Technology by Executive Order 2002-2.

C. "New e-Michigan Advisory Council" means the advisory body created within the new e-Michigan Office by Executive Order 2002-2.

II. TRANSFER

A. All of the authority, powers, functions, duties, and responsibilities of the new e-Michigan Office are transferred to the Department of Information Technology by Type III transfer as defined by Section 3 of Act No. 380 of the Public Acts of 1965, as amended, being Section 16.103 of the Michigan Compiled Laws. The new e-Michigan Office is hereby abolished.

B. All of the authority, powers, functions, duties, and responsibilities of the new e-Michigan Advisory Council are transferred to the Department of Information Technology by Type III transfer as defined by Section 3 of Act No. 380 of the Public Acts of 1965, as amended, being Section 16.103 of the Michigan Compiled Laws. The new e-Michigan Advisory Council is hereby abolished.

III. MISCELLANEOUS

A. The Director of the Department of Information Technology or the designee of the Director shall provide executive direction and supervision for the implementation of the transfers made under this Order.

B. The Director of the Department of Information Technology or the designee of the Director shall administer the assigned functions transferred by this Order in such ways as to promote efficient administration and shall make internal organizational changes as may be administratively necessary to complete the realignment of responsibilities prescribed by this Order.

C. The Director of the Department of Information Technology shall immediately initiate coordination with the Director of the new e-Michigan Office to facilitate the transfers and develop memoranda of record identifying any pending settlements, issues of compliance with applicable federal and state laws and regulations, or other obligations to be resolved by the Department of Information Technology.

D. All records, personnel, property, grants, and unexpended balances of appropriations, allocations, and other funds used, held, employed, available, or to be made available for the activities, power, duties, functions, and responsibilities transferred by this Order shall be transferred to the Department of Information Technology.

E. The State Budget Director shall determine and authorize the most efficient manner possible for handling financial transactions and records in the state's financial management system for the remainder of the year.

F. The Department of Information Technology may accept grants of funds and donations of funds, property, labor, or other things of value from any department or office of the State of Michigan and the United States and from any other public or private office or person for the purpose of furthering online government services.

G. The Director of the Department of Information Technology may, by written instrument, delegate a duty or power conferred by law or this Order, and the person to whom such duty or power is so delegated may perform such duty or exercise such power at the time and to the extent delegated by the Director of the Department of Information Technology.

H. All rules, orders, contracts, and agreements relating to the functions transferred to the Department of Information Technology by this Order shall continue to be effective until revised, amended, or rescinded.

I. Any suit, action, or other proceeding lawfully commenced by, against, or before any entity affected by this Order, shall not abate by reason of this Order. Any suit, action, or other proceeding may be maintained by, against, or before the appropriate successor of any entity affected by this Order.

J. The invalidity of any portion of this Order shall not affect the validity of the remainder thereof.

In fulfillment of the requirement of Article V, Section 2, of the Constitution of the state of Michigan of 1963, the provisions of this Executive Order shall become effective on October 1, 2002.

Given under my hand and the Great Seal of the State of Michigan this _____ day of August, in the Year of our Lord, Two Thousand Two.

_____

GOVERNOR

BY THE GOVERNOR:

_____

SECRETARY OF STATE

ENROLLED SENATE AND HOUSE BILLS SIGNED INTO LAW OR VETOED (2002 SESSION)

Mich. Const. Art. IV, §33 provides: "Every bill passed by the legislature shall be presented to the governor before it becomes law, and the governor shall have 14 days measured in hours and minutes from the time of presentation in which to consider it. If he approves, he shall within that time sign and file it with the secretary of state and it shall become law . . . If he does not approve, and the legislature has within that time finally adjourned the session at which the bill was passed, it shall not become law. If he disapproves . . . he shall return it within such 14-day period with his objections, to the house in which it originated."

Mich. Const. Art. IV, §27, further provides: "No act shall take effect until the expiration of 90 days from the end of the session at which it was passed, but the legislature may give immediate effect to acts by a two-thirds vote of the members elected to and serving in each house."

MCL 24.208 states in part:

"Sec. 8. (1) The 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."

ENROLLED SENATE AND HOUSE BILLS SIGNED INTO LAW OR VETOED (2002 SESSION)

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
1		472	Yes	1/21	1/23	01/23/02	**STATE;** Funds; children's trust fund; revise investment options. **(Sen. S. Johnson)**
2	5027		Yes	1/21	1/23	01/23/02	**HIGHWAYS;** Name; renaming certain portion of M-69; designate as "Oscar G. Johnson Memorial Highway". **(Rep. D. Bovin)**
3		430	No	2/6	2/7	**	**ENVIRONMENTAL PROTECTION;** Other; dark sky preserve; repeal sunset. **(Sen. B. Hammerstrom)**
4		471	Yes	2/6	2/7	02/07/02	**FINANCIAL INSTITUTIONS;** Other; licensing of residential mortgage originator; clarify. **(Sen. B. Leland)**
5		615	Yes	2/6	2/7	02/07/02	**HIGHWAYS;** Name; renaming a certain portion of US-127; establish as the "Gary Priess Memorial Highway." **(Sen. V. Garcia)**
6	5436		Yes	2/14	2/14	02/14/02	**PROPERTY;** Conveyances; transfer of certain state owned properties in Tuscola county and Wayne county; provide for. **(Rep. T. Meyer)**
7		682	Yes	2/14	2/14	02/14/02	**CHILDREN;** Support; citation in divorce law; enact change necessitated by 2001 PA 107. **(Sen. B. Hammerstrom)**
8		683	Yes	2/14	2/14	02/14/02	**CHILDREN;** Support; citation in the family support act; enact changes necessitated by 2001 PA 111. **(Sen. B. Hammerstrom)**
9		684	Yes	2/14	2/14	02/14/02	**CHILDREN;** Support; citation in child custody act; enact change necessitated by 2001 PA 108. **(Sen. B. Hammerstrom)**
10		434	Yes	2/14	2/14	02/14/02	**CHILDREN;** Protection; reporting suspected child abuse or neglect; clarify provisions and add categories of mandated reporters. **(Sen. B. Hammerstrom)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
11	4195		Yes	2/18	2/19	02/19/02	**HEALTH FACILITIES;** Nursing homes; individual responsible for receving complaints and conducting complaint investigations; require nursing home to have such individual available 24 hours per day, 7 days per week. **(Rep. B. Patterson)**
12	4980		Yes	2/18	2/19	02/19/02	**HIGHWAYS;** Name; renaming certain portion of I-69; designate as "Purple Heart Highway." **(Rep. P. DeWeese)**
13	5005		Yes	2/18	2/19	2/19/02	**TRANSPORTATION;** Other; motor fuels quality; revise standards and penalties. **(Rep. L. Julian)**
14	5009		Yes	2/18	2/19	2/19/02	**CHILDREN;** Abuse or neglect; failure to report; increase penalties. **(Rep. M. Middaugh)**
15	4487		Yes	2/21	2/21	2/21/02	**COMMERCIAL CODE;** Sales; price of goods for which a writing is required for an enforceable contract; increase minimum to $1,000.00. **(Rep. J. Koetje)**
16	4009		Yes	2/27	2/28	2/28/02	**AGRICULTURE;** Other; low-interest loans for certain agricultural disasters; provide for. **(Rep. R. Jelinek)**
17	4812		Yes	2/28	3/1	3/1/02	**LIENS; Generally;** ownership and lien rights of dies, molds, and forms; revise. **(Rep. A. Richner)**
18	5382		Yes	2/28	3/1	3/1/2002 #	**COMMERCIAL CODE;** Secured transactions; reference to molderÕs lien act in secured transactions; amend uniform commercial code to provide. **(Rep. M. Mortimer)**
19	5023		Yes	3/4	3/4	03/04/02	**COUNTIES;** Other; recording requirements of register of deeds; revise. **(Rep. A. Sanborn)**
20	5024		Yes	3/4	3/4	03/04/02	**PROPERTY;** Land contracts; contracts for sale of land; eliminate witness requirement. **(Rep. A. Sanborn)**
21	5025		Yes	3/4	3/4	03/04/02	**LAND USE;** Land division; signatures on proprietorÕs certificate on the plat; eliminate witness requirement. **(Rep. A. Sanborn)**

* - I.E. means Legislature voted to give the Act immediate effect.
** - Act takes effect on the 91st day after *sine die* adjournment of the Legislature.
*** - See Act for applicable effective date.
\+ - Line item veto
\# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
22	5186		Yes	3/4	3/4	03/04/02	**COUNTIES;** Employees and officers; requirement for medical examiner to live in county of appointment; eliminate, and repeal acts and parts of acts. **(Rep. G. Van Woerkom)**
23	5022		Yes	3/4	3/4	03/04/02	**COUNTIES;** Employees and officers; procedure for recording deeds and mortgages; eliminate witness requirement. **(Rep. A. Sanborn)**
24		505	No	3/5	3/6	** #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guideline provisions for possession of firearms on commercial airport property; provide for. **(Sen. P. Hoffman)**
25		718	Yes	3/5	3/6	03/06/02	**WORKERÕS COMPENSATION;** Insurers; certain assessments; revise. **(Sen. B. Bullard Jr.)**
26		496	Yes	3/5	3/6	03/06/02	**INSURANCE;** Insurers; service of process in certain cases; provide for. **(Sen. B. Bullard Jr.)**
27	4028		Yes	3/5	3/6	03/06/02	**LOCAL GOVERNMENT;** Other; spot blight designation and acquisition; provide for. **(Rep. A. Richner)**
28	5389		Yes	3/7	3/7	04/01/02	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. W. McConico)**
29	5390		Yes	3/7	3/7	04/01/02	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. W. OÕNeil)**
30	5391		Yes	3/7	3/7	04/01/02	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. J. Faunce)**
31	5392		Yes	3/7	3/7	04/01/02	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. L. Julian)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
32		493	Yes	3/7	3/7	03/07/02	**INSURANCE;** Other; requirement for commissioner to obtain approval of a circuit court judge before issuing a subpoena in certain cases; eliminate. **(Sen. B. Bullard Jr.)**
33	5483		Yes	3/7	3/7	3/7/2002 #	**BUSINESSES;** Nonprofit corporations; career development and distance learning; provide for in nonprofit corporation act. **(Rep. J. Gilbert II)**
34	5393		Yes	3/7	3/7	***	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. J. Faunce)**
35		541	Yes	3/7	3/7	05/15/02	**AERONAUTICS;** Other; general amendments; provide for. **(Sen. W. North)**
36	5482		Yes	3/7	3/7	03/07/02	**BUSINESSES;** Nonprofit corporations; establishment and operation of registered distance learning corporations; authorize. **(Rep. J. Allen)**
37		604	Yes	3/7	3/7	03/07/02	**INSURANCE;** Property and casualty; mandatory exams of rating organizations; eliminate. **(Sen. V. Garcia)**
38		605	Yes	3/7	3/7	03/07/02	**INSURANCE;** No-fault; reference to public service commission certification; revise to the department of transportation. **(Sen. M. Goschka)**
39	5139		Yes	3/11	3/12	03/12/02	**EDUCATION;** School districts; access to high school campus and certain student directory information for official armed forces recruiting representatives; require. **(Rep. W. Kuipers)**
40	4690		Yes	3/11	3/12	03/12/02	**STATE;** Interstate compacts and agreements; Michigan participation in the interstate compact for adult offender supervision; establish. **(Rep. C. LaSata)**
41	5337		Yes	3/11	3/12	03/12/02	**TRANSPORTATION;** Carriers; weight restrictions on certain highways or roads; revise. **(Rep. J. Gilbert II)**

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42	4987		Yes	3/12	3/12	03/12/02	**OCCUPATIONS;** Real estate; procedure for a deposit held by an escrowee; clarify. **(Rep. M. Bishop)**
43		180	Yes	3/13	3/14	03/14/02	**CRIMES;** Prostitution; qualifying underlying offenses to establish second, third, and subsequent offense violations; amend. **(Sen. B. Schuette)**
44	4325		Yes	3/13	3/14	6/1/2002 #	**CRIMES;** Prostitution; criteria for determining prior prostitution offenses; amend to include consideration of local ordinance violations. **(Rep. C. Bisbee)**
45	5449		Yes	3/13	3/14	6/1/2002 #	**CRIMES;** Prostitution; age limit restricting prosecution for certain prostitution violations; revise, and eliminate requirement of knowledge of age of child for certain other sex-related crimes. **(Rep. J. Gilbert II)**
46		1029	Yes	3/13	3/14	6/1/2002 #	**CRIMES;** Prostitution; age limit for charging certain prostitution violations; revise. **(Sen. T. McCotter)**
47	5033		Yes	3/13	3/14	6/1/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of soliciting child to commit an immoral act; enact. **(Rep. M. Kowall)**
48		880	Yes	3/14	3/14	11/1/2002 #	**PUBLIC UTILITIES;** Other; fee structures for use of public rights-of-way; provide for. **(Sen. J. Schwarz)**
49		881	Yes	3/14	3/14	03/14/02	**COMMUNICATIONS;** Telecommunications; Michigan community communications development authority; create. **(Sen. L. Stille)**
50		999	Yes	3/14	3/14	3/14/2002 #	**PROPERTY TAX;** Other; credit for the purchase and installation of certain telecommunications equipment; provide for. **(Sen. V. Garcia)**

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51	4672		Yes	3/12	3/15	03/15/02	**EDUCATION;** Other; model local policy concerning the administration of medications to students at school; provide for. **(Rep. J. Hansen)**
52		796	Yes	3/12	3/15	*** #	**NATURAL RESOURCES;** Trust funds; natural resources trust fund; provide for expanded investment authority. **(Sen. G. McManus Jr.)**
53		797	Yes	3/12	3/15	*** #	**VETERANS;** Trust fund; investment authority; expand. **(Sen. V. Garcia)**
54		798	Yes	3/12	3/15	*** #	**NATURAL RESOURCES;** Trust funds; state parks endowment fund; provide for expanded investment authority. **(Sen. C. Dingell)**
55		799	Yes	3/12	3/15	*** #	**NATURAL RESOURCES;** Trust funds; nongame fish and wildlife trust fund; expand investment authority. **(Sen. A. Smith)**
56		800	Yes	3/12	3/15	*** #	**NATURAL RESOURCES;** Trust funds; game and fish protection trust fund; expand investment authority. **(Sen. L. Bennett)**
57		801	Yes	3/12	3/15	*** #	**NATURAL RESOURCES;** Trust funds; Michigan civilian conservation corps endowment fund; expand investment authority. **(Sen. D. Koivisto)**
58	5404		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. J. Allen)**
59	5405		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of school districts to pay for loans from state; modify. **(Rep. M. Bishop)**
60	5406		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for emergency loans for school districts; repeal. **(Rep. L. DeVuyst)**
61	5407		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. J. Gilbert II)**

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62	5408		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. J. Howell)**
63	5409		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. J. Koetje)**
64	5410		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. M. Middaugh)**
65	5414		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. S. Thomas III)**
66	5412		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. G. Van Woerkom)**
67	5413		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. S. Vear)**
68	5416		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. L. Lemmons III)**
69	5417		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. A. Lipsey)**
70	5418		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. J. Rivet)**
71	5419		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the school aid act; modify. **(Rep. M. Waters)**
72	5420		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of community colleges; modify. **(Rep. P. Zelenko)**
73	5423		Yes	3/14	3/15	03/15/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of community colleges; modify. **(Rep. M. Pumford)**

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74		592	Yes	3/14	3/15	03/15/02	**INSURANCE;** Third party administrators; requirement that third party administrators have administrative service manager; eliminate. **(Sen. B. Bullard Jr.)**
75		692	Yes	3/14	3/15	03/15/02	**LAND USE;** Farmland and open space; agricultural conservation easement or purchase of development rights; provide that entry into automatically terminates development rights agreement without lien and entitles landowner to tax credit and revise circumstances for relinquishment of farmland from development rights agreement. **(Sen. B. Hammerstrom)**
76	5119		Yes	3/14	3/15	03/15/02	**LIQUOR;** Licenses; small distillery license fee; decrease. **(Rep. S. Rocca)**
77	5585		Yes	3/21	3/21	03/21/02	**CIVIL PROCEDURE;** Civil actions; interest on judgment on a written instrument evidencing indebtedness that bears an interest rate; revise to make application of recent change prospective and provide mechanism for fixing rate when instrument bears a variable interest rate. **(Rep. A. Richner)**
78	5205		Yes	3/25	3/25	03/25/02	**TRANSPORTATION;** Carriers; number of axles allowed on certain designated highways; clarify. **(Rep. J. Gilbert II)**
79	4859		Yes	3/25	3/25	03/25/02	**CORRECTIONS;** Employees; record of controlled substance offenses that were subject to dismissal and discharge; allow to be used by department of corrections or law enforcement agencies for specified purposes. **(Rep. L. Julian)**
80	5434		No	3/25	3/25	**	**TRADE;** Other; grain dealers act; provide general amendments. **(Rep. T. Meyer)**
81	4860		Yes	3/25	3/25	03/25/02	**NATURAL RESOURCES;** Hunting; requirement for lottery to issue wild turkey hunting license; eliminate. **(Rep. M. Mortimer)**

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82	5026		Yes	3/25	3/26	03/26/02	**WEAPONS;** Firearms; transportation requirements for certain firearms; clarify. **(Rep. S. Vear)**
83		884	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general in vocational education acts; eliminate. **(Sen. T. McCotter)**
84		885	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general in social welfare act; eliminate. **(Sen. T. McCotter)**
85		886	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding commitment to certain institutions; eliminate. **(Sen. T. McCotter)**
86		888	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding certain auction duties; eliminate. **(Sen. T. McCotter)**
87		890	Yes	3/25	3/26	03/26/02	**LEGISLATURE; A**uditor general; act regarding Michigan dairymen's association; repeal. **(Sen. T. McCotter)**
88		894	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general in the code of criminal procedure; eliminate. **(Sen. T. McCotter)**
89		895	Yes	3/25	3/26	03/26/02	**LEGISLATURE;** Auditor general; reference to auditor general in the prison code; eliminate. **(Sen. T. McCotter)**
90		690	Yes	3/26	3/26	03/26/02	**STATE;** Authorities; authority to oversee the operation of certain types of airports including Detroit metropolitan Wayne county airport; create. **(Sen. G. Steil)**
91	5216		Yes	3/26	3/27	4/9/2002 #	**ELECTIONS; V**oting equipment; uniform statewide voting system; provide for under certain conditions. **(Rep. B. Patterson)**
92	5674		No	3/27	3/27	**	**COURTS;** Circuit court; certain judicial circuits and judicial districts; reform, and allow the office of district judge and probate judge to be combined in certain counties. **(Rep. K. Bradstreet)**

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93	5732		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** State employees; early retirement for certain state employees; allow under certain circumstances. **(Rep. P. DeWeese)**
94	5110		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** Public school employees; public pension protection and health advance funding; provide for. **(Rep. S. Caul)**
95	5112		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** Judges; public pension protection; provide for. **(Rep. A. Lipsey)**
96	5113		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** State police; public pension protection; provide for. **(Rep. C. Brown)**
97	5114		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** Legislative; public pension protection; provide for. **(Rep. S. Thomas III)**
98	5111		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** Fire and police; public pension protection; provide for. **(Rep. J. Howell)**
99	5109		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** State employees; public pension protection; provide for. **(Rep. J. Voorhees)**
100	5108		Yes	3/27	3/27	3/27/2002 #	**RETIREMENT;** Generally; public pension protection act; enact. **(Rep. J. Vander Roest)**
101	5125		Yes	3/27	3/27	07/01/02	**CRIMES;** Larceny; manufacture, distribution, or possession of a theft detection shielding device or of a tool designed to deactivate or remove a theft detection device; prohibit and provide penalties. **(Rep. M. Bishop)**
102	5126		Yes	3/27	3/27	7/1/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for a theft detection device offense; enact. **(Rep. M. Bishop)**
103		887	Yes	3/27	3/27	03/27/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding compensation of injured peace officers; eliminate. **(Sen. T. McCotter)**
104		889	Yes	3/27	3/27	03/27/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding protective committees; eliminate. **(Sen. T. McCotter)**

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105		892	Yes	3/27	3/27	03/27/02	**LEGISLATURE;** Auditor general; reference to auditor general in the insurance code of 1956; eliminate. **(Sen. T. McCotter)**
106		896	Yes	3/27	3/27	03/27/02	**LEGISLATURE;** Auditor general; reference to auditor general in university funds; eliminate. **(Sen. T. McCotter)**
107	5145		Yes	3/27	3/27	03/27/02	**NATURAL RESOURCES;** Other; conservation district annual meeting; allow for change of date. **(Rep. D. Mead)**
108	4937		Yes	3/27	3/27	03/27/02	**NATURAL RESOURCES;** Fishing; minimum age for voluntary all-species fishing license; eliminate. **(Rep. S. Tabor)**
109		543	Yes	3/27	3/27	07/01/02	**LIENS;** Garage keepers; garage keeperÕs lien act; clarify certain procedures. **(Sen. L. Bennett)**
110		678	Yes	3/27	3/27	03/27/02	**USE TAX;** Collections; motor vehicles held for resale; define price tax base. **(Sen. B. Bullard Jr.)**
111	5327		Yes	4/1	4/1	04/01/02	**EDUCATION;** Curricula; model financial literacy programs; provide for. **(Rep. M. Bishop)**
112		730	Yes	3/29	4/1	04/22/02	**CRIMINAL PROCEDURE;** Search and seizure; search warrant affidavits; revise procedures. **(Sen. S. Johnson)**
113		930	Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Other; certain acts relating to terrorism; prohibit and provide penalties. **(Sen. D. DeGrow)**
114		936	Yes	3/29	4/1	5/1/2002 #	**CRIMINAL PROCEDURE;** Grand jury; certain grand jury information regarding terrorism-related offenses; clarify information sharing procedures. **(Sen. B. Bullard Jr.)**
115		939	Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Other; crime of obtaining certain diagrams or descriptions of vulnerable targets with the intent to commit a terrorist act; create. **(Sen. J. Schwarz)**

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116		940	Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Definitions; definition of vulnerable target in explosives chapter of penal code; expand to include stadiums, critical transportation infrastructures, and public services providers. **(Sen. W. North)**
117		942	Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Other; use of the internet or other electronic or telecommunication system or device to disrupt critical infrastructures or governmental operations; provide penalties. **(Sen. B. Hammerstrom)**
118		943	Yes	3/29	4/1	05/01/02	**TRANSPORTATION;** Carriers; penalties for the transportation of hazardous materials without a hazardous materials endorsement; increase. **(Sen. K. Sikkema)**
119		948	Yes	3/29	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Statute of limitations; statute of limitations for certain crimes involving terrorism; eliminate. **(Sen. M. Goschka)**
120		949	Yes	3/29	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Sentencing; restitution to all governmental entities for terrorist activities; require. **(Sen. L. Bennett)**
121		994	Yes	3/29	4/1	04/01/02	**MILITARY AFFAIRS;** Other; military leaves and reemployment protection for members of the military who have been called to active service; clarify. **(Sen. A. Miller Jr.)**
122		995	Yes	3/29	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; certain crimes involving terrorism; include in sentencing guidelines. **(Sen. D. Koivisto)**
123		996	Yes	3/29	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of certain threats and false reports relating to errorism; enact. **(Sen. D. Byrum)**
124		997	Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Other; terrorism; include as predicate offense for racketeering violation. **(Sen. B. Leland)**

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125		1005	Yes	3/29	4/1	04/01/02	**HEALTH FACILITIES;** Hospitals; biohazard detection and handling plan; require each hospital to establish. **(Sen. M. Scott)**
126	4037		Yes	3/29	4/1	04/22/02	**TRAFFIC CONTROL;** Driver license; penalties for an individual who reproduces, alters, counterfeits, forges, or duplicates a license photograph; increase. **(Rep. J. Faunce)**
127	5041		Yes	3/29	4/1	4/22/2002 #	**TRAFFIC CONTROL;** Driver license; sentencing guidelines for crimes relating to forging driver licenses; enact. **(Rep. J. Kooiman)**
128	5270		Yes	3/29	4/1	04/22/02	**CRIMINAL PROCEDURE;** Search and seizure; search warrant affidavits; declare to be nonpublic information. **(Rep. S. Caul)**
129	5295		Yes	3/29	4/1	04/22/02	**CRIMINAL PROCEDURE;** Jurisdiction; jurisdiction for prosecution of criminal offense; clarify. **(Rep. G. DeRossett)**
130	5349		Yes	3/29	4/1	05/01/02	**CIVIL RIGHTS;** Public records; critical infrastructure; exempt from freedom of information act. **(Rep. M. Shulman)**
131	5495		Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Other; certain acts relating to terrorism; prohibit and provide penalties. **(Rep. J. Howell)**
132	5496		Yes	3/29	4/1	05/01/02	**STATE;** Planning; Michigan emergency manage-ment act; revise powers and duties. **(Rep. G. Newell)**
133	5501		Yes	3/29	4/1	05/01/02	**MILITARY AFFAIRS;** Other; procedure for granting immunity to certain military personnel ordered to respond to acts or threats of terrorism, procedure for apprehending individuals, access restrictions to real property used for military purposes, and plans for defense of state; authorize and clarify. **(Rep. R. Richardville)**

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134	5506		Yes	3/29	4/1	04/22/02	**CRIMES;** Other; crime of using, delivering, or possessing an imitation explosive; include possession as violation. **(Rep. C. Phillips)**
135	5507		Yes	3/29	4/1	04/22/02	**CRIMES;** Other; penalties for knowingly placing a harmful substance in food or water supply; increase. **(Rep. G. Woronchak)**
136	5509		Yes	3/29	4/1	4/22/2002 #	**CRIMES;** Money laundering; terrorism; include in definition of "specified criminal offense". **(Rep. N. Quarles)**
137		946	Yes	4/1	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; certain crimes involving terrorism; include in sentencing guidelines. **(Sen. W. Van Regenmorter)**
138		468	Yes	4/1	4/1	04/01/02	**PROPERTY;** Conveyances; certain parcels of state owned property in Genesee, Wayne, and Kalkaska counties; provide for conveyance. **(Sen. J. Cherry Jr.)**
139		899	Yes	4/1	4/1	04/01/02	**LEGISLATURE;** Auditor general; reference to auditor general for federal roads; eliminate. **(Sen. T. McCotter)**
140	5511		Yes	4/1	4/1	4/22/2002 #	**CRIMES;** Definitions; definition of vulnerable target in explosives chapter of penal code; expand to include certain other structures and facilities. **(Rep. L. Toy)**
141	5512		Yes	4/1	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Other; compensation to victims and payment of expenses for government response for terrorism-related offenses; provide for. **(Rep. G. Jacobs)**
142	5513		Yes	4/1	4/1	05/01/02	**CRIMINAL PROCEDURE;** Forfeiture; seizure and forfeiture of property used in connection with a terrorism-related offense; provide for. **(Rep. C. LaSata)**

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143	5520		Yes	4/1	4/1	4/22/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; certain crimes involving terrorism; include in sentencing guidelines. **(Rep. D. Bovin)**
144		1105	Yes	4/1	4/1	4/1/2002 +	**APPROPRIATIONS;** Higher education; higher education; provide for fiscal year 2002-2003. **(Sen. J. Schwarz)**
145		902	Yes	4/1	4/2	04/02/02	**LEGISLATURE;** Auditor general; reference to auditor general in hospitals and sanitoria; eliminate. **(Sen. T. McCotter)**
146	5400		Yes	4/1	4/2	04/02/02	**INSURANCE;** Life; ability to provide excess loss insurance; provide for. **(Rep. L. Julian)**
147	5328		Yes	4/1	4/2	04/02/02	**PROPERTY;** Land contracts; definition of "real estate mortgage"; clarify. **(Rep. M. Bishop)**
148	5118		Yes	Unsigned	4/5	04/05/02	**NATURAL RESOURCES;** Gas and oil; slant drilling beneath Great Lakes; prohibit except for existing leases. **(Rep. S. Shackleton)**
149	5021		Yes	4/8	4/8	07/01/02	**TRAFFIC CONTROL;** Speed restrictions; penalties for violation of speed limit in construction zone; increase number of points added to driving record. **(Rep. J. Allen)**
150		811	Yes	4/8	4/8	04/08/02	**TRANSPORTATION;** Other; use of rights-of-way, structures, welcome centers, and rest stops for commercial intelligent transportation system applications; allow. **(Sen. B. Bullard Jr.)**
151		812	Yes	4/8	4/8	04/08/02	**TRANSPORTATION;** Other; use of rights-of-way, structures, welcome centers, and rest stops for commercial intelligent transportation system applications; allow. **(Sen. B. Bullard Jr.)**
152	5422		Yes	4/8	4/8	04/08/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of community colleges; modify. **(Rep. T. Meyer)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
153		897	Yes	4/8	4/8	04/08/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding veteransÕ trust funds; eliminate. **(Sen. T. McCotter)**
154		898	Yes	4/8	4/8	04/08/02	**LEGISLATURE;** Auditor general; reference to auditor general in state board of equalization; eliminate. **(Sen. T. McCotter)**
155		900	Yes	4/8	4/8	04/08/02	**AGRICULTURE;** Other; act to reimburse for pest eradication; repeal. **(Sen. T. McCotter)**
156		901	Yes	4/8	4/8	04/08/02	**LEGISLATURE;** Auditor general; reference to auditor general for agricultural college lands; eliminate. **(Sen. T. McCotter)**
157		385	Yes	4/8	4/8	01/01/03	**EDUCATION;** Board members; requirements for nomination as a candidate for office of school board; revise. **(Sen. K. Sikkema)**
158		386	Yes	4/8	4/8	01/01/03	**ELECTIONS;** Candidates; requirements for nomination as a candidate for county commissioner; revise. **(Sen. T. McCotter)**
159		387	Yes	4/8	4/8	01/01/03	**LIBRARIES;** District; requirements for nomination as a candidate for district library board; revise. **(Sen. B. Hammerstrom)**
160		388	Yes	4/8	4/8	01/01/03	**LIBRARIES;** Other; requirements for nomination as a candidate for office of library board; revise. **(Sen. B. Hammerstrom)**
161		1100	Yes	4/8	4/8	04/08/02	**APPROPRIATIONS;** Community colleges; community and junior colleges; provide for fiscal year 2002-2003. **(Sen. H. Gast)**
162		397	Yes	4/8	4/8	04/08/02	**STATE;** Symbol; mastodon; establish as state fossil. **(Sen. T. McCotter)**
163	5335		Yes	4/9	4/9	04/09/02	**ELECTIONS;** Ballots; provisions regulating names and designations on ballots; revise and clarify. **(Rep. A. Richner)**
164		346	Yes	4/10	4/11	04/11/02	**TORTS;** Liability; definition of wrongful or negligent act against a pregnant individual; expand to include the death of the embryo or fetus. **(Sen. W. Van Regenmorter)**

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165		971	Yes	4/10	4/11	04/11/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the property tax act; modify. **(Sen. S. Johnson)**
166		973	Yes	4/10	4/11	04/11/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the property tax act; modify. **(Sen. D. Byrum)**
167		903	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding certain universities; eliminate. **(Sen. T. McCotter)**
168		904	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general for certain forest roads; eliminate. **(Sen. T. McCotter)**
169		905	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding certain education funds; eliminate. **(Sen. T. McCotter)**
170		906	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in Michigan agricultural college act; eliminate. **(Sen. T. McCotter)**
171		907	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in sanatoriums act; eliminate. **(Sen. T. McCotter)**
172		908	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in military bonus bonds act; eliminate. **(Sen. T. McCotter)**
173		909	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in veterans' military pay act; eliminate. **(Sen. T. McCotter)**
174		910	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in Korean veterans' pay act; eliminate. **(Sen. T. McCotter)**

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175		911	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in insect and pests act; eliminate. **(Sen. T. McCotter)**
176		912	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding bonds for certain state officers; eliminate. **(Sen. T. McCotter)**
177		913	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general in certain state lands; eliminate. **(Sen. T. McCotter)**
178		915	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding certain school taxes; eliminate. **(Sen. T. McCotter)**
179		916	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding certain state land; eliminate. **(Sen. T. McCotter)**
180		918	Yes	4/23	4/23	04/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general for certain tax payments; eliminate. **(Sen. T. McCotter)**
181	5415		Yes	4/23	4/23	04/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. C. Kolb)**
182	5421		Yes	4/23	4/23	04/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of community colleges; modify. **(Rep. W. Kuipers)**
183	5516		Yes	4/23	4/24	05/01/02	**FINANCIAL INSTITUTIONS;** Banks; financial institution to seize funds of terrorist organizations; require. **(Rep. D. Sheltrown)**
184	5517		Yes	4/23	4/24	5/1/02	**FINANCIAL INSTITUTIONS;** Credit unions; financial institution to seize funds of terrorist organizations; require. **(Rep. M. Waters)**
185	5518		Yes	4/23	4/24	5/1/02	**FINANCIAL INSTITUTIONS;** Savings and loan associations; financial institution to seize funds of terrorist organizations; require. **(Rep. W. McConico)**

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186		829	Yes	4/23	4/24	4/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority relating to the management of state funds; modify. **(Sen. V. Garcia)**
187		830	Yes	4/23	4/24	4/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the executive organization act of 1965; repeal. **(Sen. B. Leland)**
188		831	Yes	4/23	4/24	4/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the department of management and budget; modify. **(Sen. V. Garcia)**
189		832	Yes	4/23	4/24	4/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for city exhibition areas; modify. **(Sen. A. Smith)**
190		835	Yes	4/23	4/24	04/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of tax increment finance authorities; modify. **(Sen. V. Garcia)**
191		1107	Yes	4/25	4/26	04/26/02	**APPROPRIATIONS;** School aid; school aid; adjust for fiscal year 2001-2002 and provide for fiscal year 2002-2003. **(Sen. L. Stille)**
192	5763		Yes	4/26	4/26	04/26/02	**EMPLOYMENT SECURITY;** Benefits; unemployment benefits; increase, revise calculation and payment, and include Indian tribes. **(Rep. R. Richardville)**
193		966	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for municipal borrowing; modify. **(Sen. G. Peters)**
194		967	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for borrowing for road purposes; modify. **(Sen. V. Garcia)**
195		968	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for bonds or notes for capital improvements; modify. **(Sen. R. Emerson)**
196		969	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of an employee-owned corporation revolving loan fund; repeal. **(Sen. D. Byrum)**
197		970	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the property tax act; modify. **(Sen. B. Bullard Jr.)**

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198		972	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the property tax act; modify. **(Sen. S. Johnson)**
199		974	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of county improvement act; modify. **(Sen. K. DeBeaussaert)**
200		975	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of county and regional parks; modify. **(Sen. A. Sanborn)**
201		976	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of home rule cities; modify. **(Sen. S. Johnson)**
202		978	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of blighted area rehabilitation; modify. **(Sen. B. Leland)**
203		979	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of county zoning act; modify. **(Sen. T. McCotter)**
204		980	Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of township zoning act; modify. **(Sen. T. McCotter)**
205	5182		Yes	4/26	4/29	04/29/02	**OCCUPATIONS;** Electricians; installation, maintenance, or servicing of certain lawn irrigation equipment and landscape lighting; exempt from license requirements. **(Rep. W. Kuipers)**
206	5576		Yes	4/26	4/29	05/01/02	**CRIMINAL PROCEDURE;** Sentencing guidelines; technical amendments; provide for. **(Rep. J. Faunce)**
207	5480		Yes	4/26	4/29	04/29/02	**FOOD;** Other; protection of halal food; provide penalties for consumer fraud. **(Rep. G. Woronchak)**
208	5525		Yes	4/26	4/29	04/29/02	**AGRICULTURE;** Weights and measures; voluntary registration of certain persons; provide for and update standards. **(Rep. G. Van Woerkom)**
209	5136		Yes	4/26	4/29	04/29/02	**AGRICULTURE;** Plants; destruction of certain crops grown for certain purposes; provide civil damages. **(Rep. T. Meyer)**

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210		1032	Yes	4/26	4/29	04/29/02	**CRIMES;** Other; provision relating to taunting of an individual as having been a convict or an inmate in a correctional facility or jail; repeal. **(Sen. T. McCotter)**
211		1027	Yes	4/26	4/29	04/29/02	**ADVERTISING;** Other; provision relating to sale and distribution of publications reporting certain criminal activity; repeal. **(Sen. T. McCotter)**
212	5102		Yes	4/26	4/29	04/29/02	**CORRECTIONS;** Other; short title for department of corrections act; provide for. **(Rep. J. Faunce)**
213	5623		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. S. Tabor)**
214	5625		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. G. DeRossett)**
215	5626		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. S. Ehardt)**
216	5627		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. D. Mead)**
217	5628		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. S. Hummel)**
218	5629		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. M. Murphy)**
219	5630		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. W. McConico)**

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220	5631		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. M. Waters)**
221	5632		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. D. Hale)**
222	5633		Yes	4/26	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. S. Pestka)**
223		842	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; Michigan tax lien sale and collateralized securities act; repeal. **(Sen. B. Hammerstrom)**
224		843	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority under the revised judicature act; modify. **(Sen. W. Van Regenmorter)**
225		844	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of federal facility development act, the federal data facility act, and corresponding income tax credit; repeal. **(Sen. J. Schwarz)**
226		845	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of townships; modify. **(Sen. W. Van Regenmorter)**
227		847	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for township water supply and sewage disposal services and facilities; modify. **(Sen. B. Bullard Jr.)**
228		849	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for township parks and places of recreation; modify. **(Sen. B. Bullard Jr.)**
229		850	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for public improvements; modify. **(Sen. S. Johnson)**

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230		851	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of charter townships; modify. **(Sen. T. McCotter)**
231		855	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of fourth class cities; modify. **(Sen. W. North)**
232		857	Yes	27-Apr	29-Apr	4/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of a community swimming pool authority; modify. **(Sen. W. Van Regenmorter)**
233		858	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of recreational authorities; modify. **(Sen. S. Johnson)**
234		860	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of downtown development authorities; modify. **(Sen. B. Bullard Jr.)**
235		861	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority under local development financing act; modify. **(Sen. D. Shugars)**
236		862	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority under resort district rehabilitation act; modify. **(Sen. B. Hammerstrom)**
237		864	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for state convention facility development; modify. **(Sen. M. Scott)**
238		865	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of county departments of solid waste management; modify. **(Sen. G. Peters)**
239		866	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for garbage disposal plants; modify. **(Sen. J. Young Jr.)**

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240		867	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for city and village garbage disposal; modify. **(Sen. J. Young Jr.)**
241		868	Yes	4/27	4/29	04/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of municipal sewage and water supply systems; modify. **(Sen. K. DeBeaussaert)**
242		869	Yes	4/27	4/29	4/29/02	**LOCAL GOVERNMENT;** Bonds; bonding authority under land reclamation and improvement authority act; modify. **(Sen. M. Dunaskiss)**
243		1166	Yes	4/30	4/30	4/30/02	**PROPERTY TAX;** State education tax; summer levy; require. **(Sen. H. Gast)**
244		1165	Yes	4/30	4/30	4/30/02	**PROPERTY TAX;** Millage; 1-time collection of a summer tax levy; provide for and amend title. **(Sen. J. Schwarz)**
245	5298		Yes	4/30	4/30	5/1/02	**CRIMINAL PROCEDURE;** Mental capacity; "guilty but mentally ill" provisions; revise to conform with insanity statute. **(Rep. J. Koetje)**
246	5411		Yes	4/30	4/30	5/1/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. M. Mortimer)**
247		1007	Yes	4/30	4/30	5/1/02	**FINANCIAL INSTITUTIONS;** Savings banks; financial institution to seize funds of terrorist organizations and report to attorney general; require. **(Sen. G. Peters)**
248	5624		Yes	4/30	4/30	04/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. L. Julian)**
249	5634		Yes	4/30	4/30	04/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. I. Clark)**
250		839	Yes	5/1	5/1	05/01/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of uniform budgeting and accounting act; modify. **(Sen. H. Gast)**

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251		882	Yes	5/1	5/1	05/01/02	**INSURANCE;** No-fault; automobile insurance placement facility to provide for premium surcharges for various infractions; allow. **(Sen. A. Sanborn)**
252		1026	Yes	5/1	5/1	05/01/02	**TRANSPORTATION;** Carriers; requirement for vehicles transporting gasoline, benzine, or naphtha to be painted red; eliminate. **(Sen. T. McCotter)**
253		1057	Yes	5/1	5/1	05/01/02	**HIGHWAYS;** Construction and repair; widening and altering of state trunk line highways with approval of state administrative board; repeal certain section. **(Sen. T. McCotter)**
254	5472		Yes	5/1	5/1	05/01/02	**ECONOMIC DEVELOPMENT;** Brownfield redevelopment authority; specific taxes; include neighborhood enterprise zone act. **(Rep. J. Allen)**
255	4507		Yes	5/1	5/1	05/01/02	**SALES TAX;** Exemptions; exemption from paying sales tax on certain items; clarify procedure. **(Rep. L. DeVuyst)**
256		837	Yes	5/1	5/1	05/01/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of local governmental units to accept financial transaction device payments; modify. **(Sen. R. Emerson)**
257		838	Yes	5/1	5/1	05/01/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of local units authorizing and regulating credit card transactions; modify. **(Sen. V. Garcia)**
258		1006	Yes	5/1	5/1	*** #	**AERONAUTICS;** Other; criminal background checks on applicants for flight schools; require and provide for refusal to enroll under certain circumstances. **(Sen. G. Hart)**

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259	5504		Yes	5/1	5/1	05/01/02	**TRAFFIC CONTROL;** Driver license; criminal background checks on applicants for commercial driver license; require. **(Rep. R. Brown)**
260		1034	Yes	5/1	5/1	05/01/02	**CRIMES;** Other; criminal provision relating to inciting an individual to violate a peace treaty with an Indian native or tribe; repeal. **(Sen. T. McCotter)**
261		1035	Yes	5/1	5/1	5/1/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of inciting an individual to violate a peace treaty with an Indian native or tribe; eliminate. **(Sen. T. McCotter)**
262		1037	Yes	5/1	5/1	05/01/02	**CRIMES;** Other; criminal provision relating to the use of bells on cutters and sleighs; repeal. **(Sen. D. Koivisto)**
263	5152		Yes	5/1	5/1	05/01/02	**FINANCIAL INSTITUTIONS;** Savings banks; conversion of a chartered savings bank to a mutual holding company; provide for. **(Rep. A. Sanborn)**
264	4848		Yes	5/8	5/9	05/09/02	**LAW ENFORCEMENT;** Other; provision regarding the appointment of unqualified undersheriff or deputy sheriff; repeal. **(Rep. T. Stamas)**
265	5151		Yes	5/8	5/9	01/01/03	**CIVIL PROCEDURE;** Civil actions; limitation on appeal bond; establish. **(Rep. A. Richner)**
266	5440		Yes	5/8	5/9	7/15/2002 #	**CRIMES;** Assaultive; assaulting, resisting, or obstructing an officer causing bodily injury, serious impairment of a body function, or death; prohibit and establish penalties. **(Rep. J. Faunce)**
267	5211		Yes	5/8	5/9	05/09/02	**PROPERTY TAX;** Personal property; electronic filing of personal property statement; allow. **(Rep. S. Vear)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
268		982	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of community swimming pool authority; modify. **(Sen. B. Leland)**
269	5441		Yes	5/8	5/9	7/15/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crimes of assaulting, resisting, or obstructing an officer seriously injuring or causing injury, serious impairment, or death; provide for. **(Rep. L. Julian)**
270	5442		Yes	5/8	5/9	5/9/2002 #	**CRIMES;** Assaultive; penalties for assaulting, beating, wounding, obstructing, or endangering an officer other than a peace officer; establish. **(Rep. J. Kooiman)**
271	5443		Yes	5/8	5/9	5/9/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of assaulting, beating, wounding, obstructing, or endangering officers other than peace officers; provide for. **(Rep. R. Basham)**
272	5601		Yes	5/8	5/9	7/15/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of obstructing firefighter; eliminate. **(Rep. M. Kowall)**
273		846	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of pavements, sidewalks, and elevated structures; modify. **(Sen. J. Young Jr.)**
274		848	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of township and village public improvements and public services; modify. **(Sen. K. DeBeaussaert)**
275		852	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of county boards of commissioners; modify. **(Sen. A. Smith)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
276		853	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of general law village act; modify. **(Sen. W. North)**
277		854	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of home rule village act; modify. **(Sen. K. DeBeaussaert)**
278		1045	Yes	5/8	5/9	5/9/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of embezzlement of railroad passenger tickets; eliminate. **(Sen. C. Dingell)**
279		1047	Yes	5/8	5/9	5/9/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of larceny of railroad tickets; eliminate. **(Sen. C. Dingell)**
280	5568		Yes	5/8	5/9	05/09/02	**ECONOMIC DEVELOPMENT;** Plant rehabilitation; provision to include electric generating plants; extend sunset. **(Rep. N. Cassis)**
281	5755		Yes	5/8	5/9	05/09/02	**HIGHWAYS;** Bridges; provision relating to construction of interstate bridge between Michigan and Wisconsin; repeal. **(Rep. B. Patterson)**
282	5752		Yes	5/8	5/9	05/09/02	**VEHICLES;** Equipment; provisions relating to requirement for certain equipment for certain vehicles weighing in excess of 10,000 pounds; repeal. **(Rep. B. Patterson)**
283	5486		Yes	5/8	5/9	05/09/02	**HOUSING;** Condominium; multiple amendments of the condominium act; provide for. **(Rep. M. Bishop)**
284		981	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of city and village zoning act; modify. **(Sen. T. McCotter)**
285		983	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for neighborhood area improvements; modify. **(Sen. A. Smith)**

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286		984	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for permanent improvements by counties; modify. **(Sen. W. North)**
287		985	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of local improvement revolving fund; modify. **(Sen. A. Smith)**
288		986	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for purchase of fire fighting equipment; modify. **(Sen. A. Miller Jr.)**
289		988	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of safe drinking water financial assistance act; modify. **(Sen. A. Sanborn)**
290		1038	Yes	5/8	5/9	05/09/02	**CRIMES;** Robbery; statute relating to entering a train for robbery by means of intimidation; repeal. **(Sen. C. Dingell)**
291		1039	Yes	5/8	5/9	5/902	**CRIMES;** Other; statute relating to forcible detention of a railroad train; repeal. **(Sen. C. Dingell)**
292		1040	Yes	5/8	5/9	05/09/02	**CRIMES;** Robbery; statute relating to seizing a locomotive with mail or express car attached; repeal. **(Sen. C. Dingell)**
293		1042	Yes	5/8	5/9	05/09/02	**CRIMES;** Fraud; criminal provision relating to the issuance of stocks, bonds, or corporate obligations in railroad companies; repeal. **(Sen. C. Dingell)**
294		1044	Yes	5/8	5/9	05/09/02	**CRIMES;** Embezzlement; criminal provision relating to embezzlement of railroad passenger tickets; repeal. **(Sen. C. Dingell)**
295		1046	Yes	5/8	5/9	05/09/02	**CRIMES;** Larceny; statute prohibiting larceny of railroad passenger ticket; repeal. **(Sen. C. Dingell)**
296		1048	Yes	5/8	5/9	05/09/02	**CRIMES;** Counterfeiting; statute prohibiting forgery of railroad tickets; repeal. **(Sen. C. Dingell)**

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297		1059	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of industrial development revenue bond act of 1963; modify. **(Sen. J. Emmons)**
298		1060	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of city and village water supply; repeal. **(Sen. B. Bullard Jr.)**
299		1061	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for public markets; repeal. **(Sen. B. Leland)**
300		1063	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the Michigan municipal distributable aid bond act; modify. **(Sen. J. Emmons)**
301		1065	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for community airports; modify. **(Sen. B. Leland)**
302		1066	Yes	5/8	5/9	05/09/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of Michigan export development act; modify. **(Sen. B. Leland)**
303	4057		Yes	5/10	5/10	05/10/02	**HEALTH FACILITIES;** Nursing homes; quality assurance assessment fee, prohibiting employment by certain health facilities of individuals with certain criminal history, and reporting of certain employer disciplinary action; provide for in certain cases. **(Rep. P. Birkholz)**
304		748	Yes	5/10	5/10	05/10/02	**INSURANCE;** Health; health maintenance organization deductibles, quality assurance assessment fee, and medicare supplement policy changes; provide for. **(Sen. B. Hammerstrom)**
305		685	Yes	5/11	5/13	05/13/02	**HIGHWAYS;** Name; portion of I-94 in Battle Creek; designate as the "94th Combat Infantry Division Memorial Highway." **(Sen. T. McCotter)**
306		856	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of building authorities; modify. **(Sen. J. Young Jr.)**

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307		1068	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of veterans' memorials on city lands; repeal. **(Sen. J. Schwarz)**
308		1069	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for police and fire protection; modify. **(Sen. W. Van Regenmorter)**
309		1070	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for county fairs and exhibitions; repeal. **(Sen. J. Emmons)**
310		1071	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for water supply and municipal lighting; repeal. **(Sen. B. Bullard Jr.)**
311		1072	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for village courthouse or jail; repeal. **(Sen. A. Sanborn)**
312		1075	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for joint public buildings; modify. **(Sen. D. Shugars)**
313		1081	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for sewerage disposal plants; repeal. **(Sen. K. Sikkema)**
314		1083	Yes	5/11	5/13	05/13/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for waterfront improvements; repeal. **(Sen. B. Bullard Jr.)**
315	4799		Yes	5/14	5/14	05/14/02	**CITIES;** Home rule; funding for separation of storm water drainage and sanitary sewers on private property; provide for. **(Rep. T. Stamas)**
316		451	Yes	5/17	5/17	10/01/02	**INSURANCE;** Health; timely payment of health care benefits; provide for and establish penalties for noncompliance. **(Sen. B. Schuette)**
317		452	Yes	5/17	5/17	10/1/2002 #	**INSURANCE;** Health care corporations; timely payment of health care benefits; provide for and establish penalties for noncompliance. **(Sen. B. Schuette)**

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318		934	Yes	5/22	5/22	5/22/2002 #	**AERONAUTICS;** Other; criminal background checks on applicants for flight schools; require. **(Sen. J. Gougeon)**
319	5138		Yes	5/23	5/23	05/23/02	**STATE;** Symbol; historical society; designate as the official historical society of Michigan. **(Rep. T. George)**
320		1043	Yes	5/23	5/23	7/15/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of issuing stocks, bonds, or corporate obligations in railroad companies; eliminate. **(Sen. C. Dingell)**
321		1049	Yes	5/23	5/23	7/15/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crimes of obstructing a firefighter and forging railroad tickets; eliminate. **(Sen. C. Dingell)**
322		1019	Yes	5/23	5/23	05/23/02	**AGRICULTURE;** Other; rule-making authority regarding started pullets; repeal. **(Sen. T. McCotter)**
323		1025	Yes	5/23	5/23	05/23/02	**FINANCIAL INSTITUTIONS;** Banks; provisions relating to the marking of ÒfakeÓ bank bills; repeal. **(Sen. T. McCotter)**
324	5547		Yes	5/23	5/23	05/23/02	**LAW ENFORCEMENT;** State police; provision prohibiting employees of the Michigan state police from participating in political campaigns; repeal. **(Rep. S. Hummel)**
325	4603		Yes	5/23	5/23	05/23/02	**CEMETERIES AND FUNERALS;** Burial; prepaid funeral contracts; increase cap. **(Rep. S. Ehardt)**
326	5822		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of base conversion authority act; modify. **(Rep. B. Palmer)**
327	5823		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Rep. C. Bisbee)**

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328	5836		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of metropolitan transportation authorities act of 1967; modify. **(Rep. J. Scranton)**
329	5839		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the state trunk line highway system; modify. **(Rep. G. Newell)**
330	5840		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority to borrow from the motor vehicle highway fund; modify. **(Rep. M. Shulman)**
331	5844		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for limited access highways; modify. **(Rep. R. Jamnick)**
332	5855		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for township and village libraries; modify. **(Rep. B. Vander Veen)**
333	5845		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for grade separation bonds; modify. **(Rep. K. Stallworth)**
334	5821		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the revised school code; modify. **(Rep. R. Jelinek)**
335	5837		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of public transportation authority; modify. **(Rep. L. Julian)**
336	5838		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for highways within townships; modify. **(Rep. D. Hart)**
337	5841		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for mass transportation system authorities; modify. **(Rep. J. Hansen)**
338	5842		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for public buildings and bridges; modify. **(Rep. J. Pappageorge)**
339	5843		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Financing; certain references to the municipal finance act; revise. **(Rep. A. Richner)**

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340	5846		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for bridge construction and maintenance; repeal. **(Rep. K. Daniels)**
341	5847		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for interstate bridge near navigable stream; repeal. **(Rep. D. Sheltrown)**
342	5848		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of aeronautics code; modify. **(Rep. D. Bovin)**
343	5849		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the community mental health authority; modify. **(Rep. S. Caul)**
344	5851		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for public library bonds; repeal. **(Rep. P. Birkholz)**
345	5852		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of district library financing act; modify. **(Rep. L. Hager)**
346	5854		Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for libraries under boards of education; modify. **(Rep. J. Stewart)**
347	5707		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in Michigan estate tax act; eliminate. **(Rep. B. Patterson)**
348	5708		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in collection of specific taxes; eliminate. **(Rep. B. Patterson)**
349	5709		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in certain drain taxes or highway assessments; eliminate. **(Rep. B. Patterson)**
350	5710		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in certain bonds and obligations; eliminate. **(Rep. B. Patterson)**

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351	5711		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in highway statute; eliminate. **(Rep. B. Patterson)**
352	5712		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in aeronautics statute; eliminate. **(Rep. B. Patterson)**
353	5713		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in drain code; eliminate. **(Rep. L. Julian)**
354	5714		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; agricultural fair commission act; repeal. **(Rep. L. Julian)**
355	5717		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in railroad land statute; eliminate. **(Rep. A. Lipsey)**
356	5718		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in natural resources and environmental protection act; eliminate. **(Rep. A. Lipsey)**
357		1077	Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of economic development corporation act; modify. **(Sen. D. Shugars)**
358		1084	Yes	5/23	5/23	05/23/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of Michigan energy employment act of 1976; modify. **(Sen. K. Sikkema)**
359		639	Yes	5/23	5/23	05/23/02	**INSURANCE;** Insurers; priority of claims distribution; modify. **(Sen. B. Bullard Jr.)**
360	4655		No	5/23	5/23	**	**HEALTH;** Funding; priority of funding for family planning programs and services; revise procedure used by department of community health. **(Rep. M. Jansen)**
361	5220		Yes	5/23	5/23	05/23/02	**HIGHWAYS;** Name; renaming a certain portion of business route 196; designate as "Cesar E. Chavez Way." **(Rep. J. Voorhees)**

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362	5611		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding certain state officers; eliminate. **(Rep. B. Patterson)**
363	5612		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general in compensation of constitutional convention delegates; eliminate. **(Rep. B. Patterson)**
364	5613		Yes	5/23	5/23	05/23/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding impeachments; eliminate. **(Rep. B. Patterson)**
365	5615		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in a statute regarding deposit of bonds for certain state officers; eliminate. **(Rep. B. Patterson)**
366	5398		Yes	5/24	5/24	09/01/02	**CRIMINAL PROCEDURE;** Defenses; defense of the voluntary consumption or ingestion of alcohol or controlled substance in all criminal cases; bar. **(Rep. R. Johnson)**
367	5662		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in act regarding department of treasury collections; eliminate. **(Rep. B. Patterson)**
368	5663		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general; eliminate. **(Rep. B. Patterson)**
369	5664		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general on state administrative board; eliminate. **(Rep. W. Kuipers)**
370	5665		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in uniform system of accounting; eliminate. **(Rep. W. Kuipers)**

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371	5666		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in claims to the state police; eliminate. **(Rep. L. Julian)**
372	5667		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in state employeesÕ retirement act; eliminate. **(Rep. L. Julian)**
373	5668		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in assessment on certain improvements; eliminate. **(Rep. B. Patterson)**
374	5669		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in audit of county sheriffs; eliminate. **(Rep. B. Patterson)**
375	5670		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in home rule village act; eliminate. **(Rep. G. Jacobs)**
376	5671		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in fourth class city act; eliminate. **(Rep. G. Jacobs)**
377	5672		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in disconnection of land from cities or villages; eliminate. **(Rep. A. Lipsey)**
378	5673		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general receiving notice of vacancy in public offices; eliminate. **(Rep. A. Lipsey)**
379	5614		Yes	5/24	5/24	05/24/02	**LEGISLATURE;** Auditor general; reference to auditor general in act regarding employment of clerks and assistants to the governor; eliminate. **(Rep. B. Patterson)**
380		1168	Yes	5/24	5/24	05/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the Vietnam veteran era bonus act; modify. **(Sen. J. Schwarz)**

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381		1171	Yes	5/24	5/24	05/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the Michigan family farm development authority; modify. **(Sen. A. Smith)**
382		1177	Yes	5/24	5/24	05/24/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of state building authority act; modify. **(Sen. B. Bullard Jr.)**
383		1179	Yes	5/28	5/28	05/28/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Sen. G. Peters)**
384	5661		Yes	5/29	5/30	05/30/02	**LEGISLATURE;** Auditor general; reference to auditor general for certain expenses; eliminate. **(Rep. B. Patterson)**
385		1169	Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of state housing development authority; modify. **(Sen. A. Smith)**
386		1178	Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Financing; certain references to the municipal finance act; revise. **(Sen. B. Bullard Jr.)**
387		1180	Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Sen. G. Peters)**
388		1181	Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Sen. G. Peters)**
389		1182	Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of natural resources and environmental protection act; modify. **(Sen. G. Peters)**
390		776	Yes	5/29	5/30	05/30/02	**FINANCIAL INSTITUTIONS;** Other; consumer financial services act; amend to prohibit individuals who committed fraud from being licensed. **(Sen. G. Steil)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
391		777	Yes	5/29	5/30	05/30/02	**FINANCIAL INSTITUTIONS;** Generally; mortgage brokers, lenders, and servicers licensing act; provide for amendments. **(Sen. G. Steil)**
392		778	Yes	5/29	5/30	05/30/02	**FINANCIAL INSTITUTIONS;** Generally; secondary mortgage act; provide for amendments. **(Sen. G. Steil)**
393		779	Yes	5/29	5/30	05/30/02	**FINANCIAL INSTITUTIONS;** Generally; regulatory loan act; provide for amendments. **(Sen. G. Steil)**
394		780	Yes	5/29	5/30	05/30/02	**FINANCIAL INSTITUTIONS;** Checks and drafts; sale of checks act; provide for amendments. **(Sen. G. Steil)**
395	5850		Yes	5/29	5/30	05/30/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of municipal health facilities corporations; modif**y. (Rep. C. LaSata)**
396	4625		Yes	5/29	5/30	5/30/2002 #	**ENVIRONMENTAL PROTECTION;** Funding; general obligation bonds; authorize to finance sewage treatment works projects, storm water projects, and nonpoint source projects that improve the quality of the waters of the state. **(Rep. B. Patterson)**
397	5892		Yes	5/29	5/30	*** #	**ENVIRONMENTAL PROTECTION;** Funding; general obligation bonds; provide for issuance to finance sewage treatment works projects, stormwater projects, and nonpoint source projects, that improve the quality of the waters of the state. **(Rep. T. Meyer)**
398	5893		Yes	5/29	5/30	*** #	**ENVIRONMENTAL PROTECTION;** Funding; state water pollution control revolving fund; modify criteria for expenditures. **(Rep. D. Mead)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
399	5237		Yes	5/29	5/30	05/30/02	**ELECTIONS;** Political parties; ballot access; revise requirements for. **(Rep. L. Drolet)**
400	5454		Yes	5/29	5/30	05/30/02	**TORTS;** Liability; governmental liability for negligence; add volunteers to certain provisions. **(Rep. M. Bishop)**
401		1096	Yes	6/3	6/3	06/03/02	**DISABILITIES;** Travel aids used by blind persons; include walkers. **(Sen. B. Hammerstrom)**
402		517	Yes	6/3	6/3	06/03/02	**OCCUPATIONS;** Physicians; referral of patients to facilities in which a physician has a financial interest; allow under certain circumstances. **(Sen. B. Hammerstrom)**
403		834	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority to pool investments; modify. **(Sen. B. Bullard Jr.)**
404		840	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the state revenue sharing act; modify. **(Sen. R. Emerson)**
405		863	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the emergency municipal loan act; modify. **(Sen. A. Miller Jr.)**
406		870	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the drain code of 1956; modify. **(Sen. G. McManus Jr.)**
407		977	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the county department and board of public works; modify. **(Sen. K. DeBeaussaert)**
408		1064	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the local government fiscal responsibility act; modify. **(Sen. A. Sanborn)**

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409		1067	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of cities and villages owning public utilities; modify. **(Sen. M. Scott)**
410		1073	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of metropolitan district act; modify. **(Sen. A. Smith)**
411		1076	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of metropolitan council act; modify. **(Sen. D. Shugars)**
412		1078	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of port authorities; modify. **(Sen. K. Sikkema)**
413		1079	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of brownfield redevelopment financing act; modify. **(Sen. K. Sikkema)**
414		1080	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of low-level radioactive waste authorities; modify. **(Sen. G. Peters)**
415		1082	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for joint water and sewage disposal; modify. **(Sen. K. Sikkema)**
416		1167	Yes	6/3	6/3	06/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority related to state indebtedness; modify. **(Sen. G. Peters)**
417	5899		Yes	6/5	6/5	06/05/02	**VEHICLES;** Registration; definition of "wood harvesting" for purposes of transportation; revise to include raw materials produced in the woods or as produced at the harvest site. **(Rep. S. Shackleton)**
418		989	Yes	6/5	6/5	06/05/02	**ENVIRONMENTAL PROTECTION;** Toxic substances; pesticide control act; provide general amendments. **(Sen. G. McManus Jr.)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
419		627	Yes	6/5	6/5	06/05/02	**CONSTRUCTION;** Equipment; technical amendments; provide for. **(Sen. B. Hammerstrom)**
420	5475		Yes	6/5	6/5	06/05/02	**TRANSPORTATION;** Railroads; maintenance of railroad grades; require written permission from both railroad and road authority to commence work and regulate the charge of certain fees. **(Rep. J. Gilbert II)**
421	5521		No	6/5	6/5	**	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for violations of the grain dealers act; provide for. **(Rep. T. Meyer)**
422		645	Yes	6/5	6/5	10/01/02	**TRAFFIC CONTROL;** Driver license; person making false bomb threat; include penalty prohibiting eligibility to obtain driver license until 21 years of age. **(Sen. V. Garcia)**
423		1009	Yes	6/5	6/5	06/05/02	**OCCUPATIONS;** Dental hygienists; education requirements for the administration of local anesthesia and nitrous oxide analgesia; clarify. **(Sen. D. Shugars)**
424	4217		Yes	6/5	6/5	06/05/02	**HOUSING;** Landlord and tenants; housing-with-services contract act; create. **(Rep. J. Scranton)**
425	5750		Yes	6/5	6/5	06/05/02	**AGRICULTURE;** Other; motor fuels quality act; remove certain rule-making authority of the department of agriculture. **(Rep. B. Patterson)**
426		1056	Yes	6/5	6/5	06/05/02	**HIGHWAYS;** Bridges; provision relating to construction of interstate bridge between Michigan and Wisconsin; repeal. **(Sen. T. McCotter)**
427	5107		Yes	6/5	6/5	06/05/02	**WORKER'S COMPENSATION;** Disabilities; members of a volunteer underwater diving team; include. **(Rep. J. Vander Roest)**

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428		891	Yes	6/5	6/5	06/05/02	**LEGISLATURE;** Auditor general; reference to auditor general regarding brine pipeline companies; eliminate. **(Sen. T. McCotter)**
429		893	Yes	6/5	6/5	06/05/02	**LEGISLATURE;** Auditor general; reference to auditor general in the revised judicature act of 1961; eliminate. **(Sen. T. McCotter)**
430		917	Yes	6/5	6/5	06/05/02	**LEGISLATURE;** Auditor general; reference to duties of the auditor general regarding certain purchases of state land; eliminate. **(Sen. T. McCotter)**
431	5466		Yes	6/6	6/6	06/06/02	**ELECTIONS;** Petitions; post office box on petitions; change to zip code and eliminate time deadlines for local ballot questions for year 2002. **(Rep. A. Richner)**
432	6114		Yes	6/6	6/6	06/06/02	**CITIES;** Boards and commissions; members of the Detroit city council; revise, subject to a vote, and establish redistricting commission. **(Rep. K. Daniels)**
433		422	Yes	6/10	6/10	06/10/02	**BUSINESSES;** Business corporations; certain provisions dealing with foreign corporations, winding up operations, and dissolution for insolvency; repeal. **(Sen. B. Bullard Jr.)**
434	5556		Yes	6/10	6/10	06/10/02	**NATURAL RESOURCES;** Fishing; miles of designated trout streams; authorize department to increase and allow children to take 1 fish. **(Rep. J. Allen)**
435		1172	Yes	6/10	6/10	06/10/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the hospital authority; modify. **(Sen. G. Peters)**
436		1173	Yes	6/10	6/10	06/10/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the hospital finance authority act; modify**. (Sen. G. Peters)**

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437	4874		Yes	6/10	6/11	08/01/02	**CIVIL RIGHTS;** Privacy; disclosure of certain information regarding students of local or intermediate school districts or public school academies; exempt from freedom of information act. **(Rep. T. Stamas)**
438		738	Yes	6/10	6/11	06/11/02	**BUSINESSES;** Business corporations; rights of foreign corporations to maintain civil actions in this state; amend. **(Sen. B. Bullard Jr.)**
439		112	Yes	6/12	6/13	06/13/02	**LOCAL GOVERNMENT;** Other; reference to "Dominion of Canada" and definition of "agency of the United States government"; revise in urban cooperation act. **(Sen. B. Schuette)**
440		540	Yes	6/12	6/13	06/13/02	**PROPERTY;** Conveyances; certain state owned land in Macomb county; convey subject to certain restrictions. **(Sen. J. Gougeon)**
441	4994		Yes	6/12	6/13	06/13/02	**HEALTH;** Occupations; procedure for issuance of health professional license for certain individuals with health professional license issued in other state or any province of Canada; provide for. **(Rep. A. Hardman)**
442		1278	Yes	6/14	6/14	***	**SINGLE BUSINESS** TAX; Other; technical amendments for foreign persons; enact. **(Sen. B. Bullard Jr.)**
443		1204	Yes	6/17	6/17	06/17/02	**TAXATION;** Other; state tax on low grade iron ore; reduce and modify. **(Sen. D. Koivisto)**
444		841	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of fiscal stabilization act; modify. **(Sen. B. Bullard Jr.)**
445		859	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of urban cooperation act; modify. **(Sen. S. Johnson)**

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446		987	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of charter water authorities; modify. **(Sen. J. Young Jr.)**
447		1074	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of port districts; modify. **(Sen. B. Bullard Jr.)**
448		1269	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the state trunk line highway system; modify. **(Sen. J. Emmons)**
449		1300	Yes	6/17	6/17	06/17/02	**LOCAL GOVERNMENT;** Bonds; state loans to school districts; modify. **(Sen. J. Emmons)**
450		1313	Yes	6/17	6/17	06/17/02	**EDUCATION;** Financing; definition of interest on qualified bonds for purposes of school bond loan fund; modify. **(Sen. J. Emmons)**
451		1265	Yes	6/21	6/21	06/21/02	**LOCAL GOVERNMENT;** Bonds; state trunk line system; modify. **(Sen. J. Emmons)**
452		1248	Yes	6/21	6/21	6/21/2002 #	**SALES TAX;** Exemptions; mobile sourcing; provide for technical amendment. **(Sen. J. Emmons)**
453		1124	Yes	6/21	6/21	06/21/02	**VEHICLES;** Other; certain motor home requirements; revise. **(Sen. W. North)**
454		415	Yes	6/21	6/21	06/21/02	**NATURAL RESOURCES;** Rivers and streams; Michigan heritage water trail program; develop. **(Sen. P. Hoffman)**
455		477	Yes	6/21	6/21	6/21/2002 #	**USE TAX;** Collections; certain aggregated taxable and nontaxable telephone, telegraph, or leased wire communications; allow for department to tax only taxable communications if provider can identify and separate on its books. **(Sen. V. Garcia)**

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456		824	Yes	6/21	6/21	6/21/2002 #	**USE TAX;** Collections; tax on mobile telecommunications; provide for sourcing**. (Sen. J. Emmons)**
457	5992		Yes	6/21	6/21	06/21/02	**SALES TAX;** Other; sales tax license fee; eliminate. **(Rep. G. DeRossett)**
458	5832		Yes	6/21	6/21	06/21/02	**AGRICULTURE;** Animals; revisions to livestock inspection and zoning procedures; provide for. **(Rep. M. Pumford)**
459	5778		Yes	6/21	6/21	06/21/02	**OCCUPATIONS;** Individual licensing and regulation; procedures for fingerprinting Michigan state bar licensing applicants; require to comply with federal mandates. **(Rep. J. Faunce)**
460	6043		Yes	6/21	6/21	06/21/02	**ECONOMIC DEVELOPMENT;** Downtown development authorities; exemption for village of Millington from certain filing requirements; provide for. **(Rep. T. Meyer)**
461	5758		Yes	6/21	6/21	06/21/02	**WATER;** Quality; arsenic testing program; extend sunset. **(Rep. R. Johnson)**
462	5927		Yes	6/21	6/21	06/21/02	**INSURANCE;** Insurers; qualified investment provisions; revise. **(Rep. A. Richner)**
463		928	Yes	6/21	6/21	06/21/02	**LAW ENFORCEMENT;** Fingerprinting; fee increases for fingerprint processing; provide for. **(Sen. P. Hoffman)**
464	5361		Yes	6/21	6/21	06/21/02	**TRADE;** Vehicles; periodic inspection requirements of body shops; eliminate. **(Rep. D. Woodward)**
465		965	Yes	6/21	6/21	06/21/02	**LOCAL GOVERNMENT;** Bonds; revenue bonding act bonding authority; modify. **(Sen. J. Emmons)**
466		1267	Yes	6/21	6/21	06/21/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the state trunk line highway system; modify. **(Sen. J. Emmons)**
467		1301	Yes	6/21	6/21	06/21/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for state trunk line highway system; modify. **(Sen. J. Emmons)**

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468		217	Yes	6/21	6/21	06/21/02	**OCCUPATIONS;** Service occupations; appliance service dealers; define, provide for certain disclosures, and provide for remedies. **(Sen. B. Bullard Jr.)**
469		116	Yes	6/21	6/21	06/21/02	**OCCUPATIONS;** Pawnbrokers; regulation of pawnbrokers; revise to include other governmental units. **(Sen. B. Schuette)**
470		1201	Yes	6/21	6/21	06/21/02	**STATE;** Authorities; reporting of securities issued by state agencies; provide for. **(Sen. B. Bullard Jr.)**
471		1230	Yes	6/21	6/21	06/21/02	**GAMING;** Lottery; percentage of lottery payout; extend sunset provision. **(Sen. J. Schwarz)**
472		927	Yes	6/21	6/21	10/01/02	**CRIMINAL PROCEDURE;** Appeals; fee for application to set aside conviction; increase. **(Sen. P. Hoffman)**
473		425	Yes	6/21	6/21	10/01/02	**OCCUPATIONS;** Security guards; transfer of certain functions to department of consumer and industry services; provide for and revise certain fees. **(Sen. P. Hoffman)**
474		929	Yes	6/21	6/21	10/01/02	**OCCUPATIONS;** Private detectives; transfer of certain functions to the department of consumer and industry services and revision of fees for private detective licensure; provide for. **(Sen. P. Hoffman)**
475		992	Yes	6/21	6/21	10/1/2002 #	**CRIMINAL PROCEDURE;** Sentencing guidelines; sentencing guidelines for crime of conducting business as private detective or private investigator without license; amend to reflect increased penalties. **(Sen. P. Hoffman)**
476	4462		Yes	6/27	6/27	06/27/02	**SCHOOL AID;** Penalties; certain days and hours when instruction not provided due to train derailment; allow to be counted as days and hours of instruction for 2001-2002. **(Rep. T. Meyer)**

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477	5805		Yes	6/27	6/27	***	**ECONOMIC DEVELOPMENT;** Renaissance zones; requirement for local unit of government to apply to the board when extending the time to a sub-renaissance zone; provide for. **(Rep. J. Allen)**
478	5806		Yes	6/27	6/27	06/27/02	**ECONOMIC DEVELOPMENT;** Renaissance zones; application and approval procedures for renaissance zone status; clarify. **(Rep. J. Rivet)**
479	5587		Yes	6/27	6/27	06/27/02	**PROPERTY TAX;** Payment and collection; collection procedures for delinquent taxes levied on certain buildings and improvements located on certain leased real property; revise. **(Rep. N. Cassis)**
480	5991		Yes	6/27	6/27	6/27/2002 #	**COMMERCIAL CODE;** Secured transactions; reference to special tools lien act; provide for in the uniform commercial code. **(Rep. C. LaSata)**
481	5993		Yes	6/27	6/27	06/27/02	**LIENS;** Generally; nonpossessory lien of certain special tools; create. **(Rep. A. Richner)**
482		920	Yes	6/27	6/27	06/27/02	**PROPERTY;** Conveyances; certain parcels of state owned property in Branch county and Wayne county; provide for and transfer certain property between state departments. **(Sen. P. Hoffman)**
483	5279		Yes	6/27	6/27	10/01/02	**CRIMINAL PROCEDURE;** Other; posttrial bail for person convicted of certain assaultive crimes; prohibit and increase certain probation fees and expand certain peace officers' jurisdiction to pursue lawbreakers. **(Rep. G. Woronchak)**
484	6062		Yes	6/27	6/27	06/27/02	**HEALTH FACILITIES;** Other; local government appropriations from general fund to municipal health facilities; eliminate cap. **(Rep. C. LaSata)**

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485	5804		Yes	6/27	6/27	10/01/02	**TRADE;** Vehicles; flood vehicle title branding; provide for and revise special plate requirements for manufacturer test vehicles. **(Rep. C. Phillips)**
486	5591		Yes	6/27	6/27	06/27/02	**INCOME TAX;** Forms; listing of credits and deductions in instruction booklet and on treasury website; require. **(Rep. N. Cassis)**
487	5928		Yes	6/27	6/27	06/27/02	**AGRICULTURE;** Other; revisions and clarification of food law; provide for. **(Rep. R. Johnson)**
488	5889		Yes	6/27	6/28	06/28/02	**STATE AGENCIES (EXISTING);** Other; process for historical markers; modify and provide funding. **(Rep. L. Julian)**
489	5807		Yes	6/27	6/28	06/28/02	**COUNTIES;** Financing; issuance of bonds to expedite county monumentation and remonumentation plan; allow. **(Rep. S. Shackleton)**
490	5362		Yes	7/2	7/3	10/01/02	**VEHICLES;** License plates; dealer plate fee; revise. **(Rep. P. Gieleghem)**
491	5360		Yes	7/2	7/3	07/03/02	**TRADE;** Vehicles; certain inspection requirements of dealers; eliminate. **(Rep. S. Hummel)**
492		991	No	7/2	7/3	**	**INSURANCE;** Insurers; certain eligibility provisions; revise. **(Sen. A. Sanborn)**
493		1268	Yes	7/2	7/3	07/03/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the state trunk line highway system; modify. **(Sen. J. Emmons)**
494		1016	Yes	7/2	7/3	07/03/02	**VEHICLES; Other; "**electric personal assistive mobility device"; define and regulate. **(Sen. B. Bullard Jr.)**
495	5819		Yes	7/2	7/3	07/03/02	**OCCUPATIONS;** Architects, professional engineers, and surveyors; exemptions from article 20; revise and clarify. **(Rep. W. Kuipers)**

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496	5380		Yes	7/2	7/3	7/3/2002 #	**ENVIRONMENTAL PROTECTION;** Solid waste; scrap tire regulations; provide general amendments. **(Rep. D. Mead)**
497		1324	Yes	7/2	7/3	10/1/2002 #	**ENVIRONMENTAL PROTECTION;** Funding; title transfer fee for the scrap tire regulatory fund; provide for. **(Sen. B. Hammerstrom)**
498	5383		Yes	7/2	7/3	07/03/02	**TRANSPORTATION;** Funds; uniform definition of maintenance; provide for. **(Rep. T. George)**
499	5396		Yes	7/2	7/3	07/03/02	**TRANSPORTATION;** Other; asset management system; create. **(Rep. L. Julian)**
500		1314	Yes	7/2	7/3	07/03/02	**LOCAL GOVERNMENT;** Bonds; provisions regarding swaps; modify. **(Sen. J. Emmons)**
501		356	Yes	7/13	7/15	07/15/02	**PROPERTY TAX;** Payment and collection; collection date of certain special assessments for townships; permit collection in July. **(Sen. G. McManus Jr.)**
502		1359	Yes	7/15	7/16	07/16/02	**CORRECTIONS;** Parole; parole supervision fees; revise. **(Sen. W. North)**
503	5248		Yes	7/18	7/18	07/18/02	**TAXATION;** Tobacco; taxation on cigarettes; increase and modify distribution. **(Rep. K. Stallworth)**
504	5883		Yes	7/19	7/19	07/19/02	**STATE;** Purchasing; procedure for department of management and budget to award bids; require to be based on qualifications of certain professionals. **(Rep. D. Mead)**
505	5860		Yes	7/19	7/19	07/19/02	**PROPERTY TAX;** Assessments; use of computerized data base for tax roll; allow for county treasurers. **(Rep. P. Birkholz)**
506		1358	Yes	7/19	7/19	07/19/02	**CRIMINAL PROCEDURE;** Warrants; public availability of search warrant affidavit; clarify. **(Sen. B. Bullard Jr.)**

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507	4719		No	7/19	7/19	**	**WATER;** Quality; testing of water at bathing beaches; provide notice to the public. **(Rep. P. Birkholz)**
508	6066		Yes	7/23	7/23	07/23/02	**STATE AGENCIES (EXISTING);** Other; department of history, arts, and libraries; establish the Michigan film advisory commission and the Michigan film office. **(Rep. J. Allen)**
509	4414		Yes	7/23	7/23	07/23/02	**ELECTIONS;** Election officials; election inspector; allow any qualified registered elector of county to serve as inspector in school elections. **(Rep. P. Birkholz)**
510	6002		Yes	7/23	7/23	07/23/02	**SALES TAX;** International sporting events; create some exemptions. **(Rep. C. Bisbee)**
511		1370	Yes	7/23	7/23	07/23/02	**USE TAX;** Definitions; limited liability company; add to definition of person and provide for some exemptions for certain international sporting events. **(Sen. J. Emmons)**
512	6071		Yes	7/23	7/23	07/23/02	**ECONOMIC DEVELOPMENT;** Renaissance zones; alternative energy zone; create. **(Rep. G. DeRossett)**
513	5457		Yes	7/23	7/23	07/23/02	**PUBLIC UTILITIES;** Electric utilities; municipally owned electric utilities transfer of transmission facilities; clarify definitions. **(Rep. K. Bradstreet)**
514	5649		Yes	7/19	7/25	07/25/02	**APPROPRIATIONS;** Military affairs; department of military affairs; provide for fiscal year 2002-2003. **(Rep. C. Brown)**
515	5648		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Other; judiciary budget; provide for fiscal year 2002-2003. **(Rep. P. Godchaux)**
516	5642		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Agriculture; department of agriculture; provide for fiscal year 2002-2003. **(Rep. M. Pumford)**
517	5643		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Other; department of career development and Michigan strategic fund; provide for fiscal year 2002-2003. **(Rep. S. Caul)**

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+ - Line item veto
# - Tie bar

Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
518		1099	Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Capital outlay; 2002-2003 fiscal year; provide for. **(Sen. H. Gast)**
519		1101	Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Community health; department of community health; provide for fiscal year 2002-2003. **(Sen. J. Gougeon)**
520		1104	Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Environmental quality; department of environmental quality; provide for fiscal year 2002-2003. **(Sen. L. Bennett)**
521	5881		Yes	7/25	7/25	07/25/02	**SCHOOL AID;** Fiscal year appropriations; appropriations for 2003-2004 fiscal year; provide for and make revisions to school aid act due to proposed changes in accreditation and assessment programs. **(Rep. C. LaSata)**
522		1103	Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Education; department of education; provide for fiscal year 2002-2003. **(Sen. L. Stille)**
523	5647		Yes	7/25	7/25	07/25/02	**APPROPRIATIONS;** Other; department of history, arts, and libraries; provide for fiscal year 2002-2003. **(Rep. M. Shulman)**
524		1102	Yes	7/25	7/25	07/25/02	**APPROPRIATIONS;** Corrections; department of corrections; provide for fiscal year 2002-2003. **(Sen. W. North)**
525		1106	Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Natural resources; department of natural resources; provide for fiscal years 2001-2002 and 2002-2003. **(Sen. G. McManus Jr.)**
526	5650		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** State police; department of state police; provide for fiscal year 2002-2003. **(Rep. C. Brown)**
527	5644		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Consumer and industry services; department of consumer and industry services and Michigan jobs commission; provide for fiscal year 2002-2003. **(Rep. M. Shulman)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
528	5646		Yes	7/25	7/25	7/25/2002 + #	**APPROPRIATIONS;** General; general government; provide for fiscal year 2002-2003. **(Rep. J. Pappageorge)**
529	5645		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Family independence agency; family independence agency; provide for fiscal year 2002-2003. **(Rep. M. Jansen)**
530	4373		Yes	7/25	7/25	7/25/2002 +	**APPROPRIATIONS;** Supplemental; supplemental appropriation; provide for fiscal years 2000-2001 and 2002-2003. **(Rep. M. Shulman)**
531		1322	Yes	7/25	7/25	07/25/02	**SINGLE BUSINESS TAX;** Credit; companies that research, develop, or produce alternative energy technologies; provide exemption, and provide incentive for certain investments. **(Sen. J. Emmons)**
532	5458		Yes	7/25	7/25	07/25/02	**PUBLIC UTILITIES;** Electric utilities; municipally owned electric utilities transfer of transmission facilities; allow. **(Rep. J. Rivet)**
533	5459		Yes	7/25	7/25	07/25/02	**PUBLIC UTILITIES;** Electric utilities; municipally owned electric utilities transfer of transmission facilities; clarify. **(Rep. B. Vander Veen)**
534		1232	Yes	7/25	7/26	10/01/02	**TRAFFIC CONTROL;** Driver license; commercial driver license revisions; provide for compliance with federal law. **(Sen. J. Schwarz)**
535		1094	Yes	7/25	7/26	07/26/02	**TRANSPORTATION;** Carriers; front loading device or boom; prohibit movement on highway under certain conditions. **(Sen. J. Schwarz)**
536		809	Yes	7/25	7/26	07/26/02	**LAW ENFORCEMENT;** Local police; exemption of weapons used by law enforcement officers; revise. **(Sen. V. Garcia)**
537		926	Yes	7/25	7/26	07/26/02	**HIGHER EDUCATION;** Financial aid; time period for use of Michigan merit award scholarship; shorten to 4 years and prescribe application deadline. **(Sen. J. Schwarz)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
538		1241	Yes	7/25	7/26	01/22/03	**INSURANCE;** Health; coverage for Òoff-labelÓ drug use; provide for. **(Sen. J. Schwarz)**
539		1242	Yes	7/25	7/26	01/22/03	**INSURANCE;** Health care corporations; coverage for Òoff-labelÓ drug use; provide for. **(Sen. J. Schwarz)**
540	5336		Yes	7/25	7/26	07/26/02	**LIBRARIES;** District; millage cap; allow for reduced amount of tax in a district library agreement and authorize consolidated district libraries in certain circumstances. **(Rep. D. Mead)**
541		1302	Yes	7/25	7/26	07/26/02	**LOCAL GOVERNMENT;** Financing; technical amendments to the revised municipal finance act; provide for. **(Sen. J. Emmons)**
542		1275	Yes	7/25	7/26	10/01/02	**CRIMINAL PROCEDURE;** Sex offender registration; certain sexual offenders who are employed by or are students at institutions of higher education to make certain reports to certain police agencies; require. **(Sen. B. Hammerstrom)**
543		184	Yes	7/25	7/26	07/26/02	**TORTS;** Immunity; physicianÕs assistants; add to list of medical professions granted immunity from liability under certain circumstances. **(Sen. J. Schwarz)**
544		794	Yes	7/25	7/26	07/26/02	**RECORDS;** Birth; live birth records over 100 years old; allow any person to obtain a certified copy from the state registrar or a local registrar. **(Sen. J. Schwarz)**
545		833	Yes	7/25	7/26	07/26/02	**LOCAL GOVERNMENT;** Bonds; bonding authority to purchase lands and property for public purposes; modify. **(Sen. D. Byrum)**
546		1174	Yes	7/25	7/26	07/26/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the higher education facilities authority; modify. **(Sen. D. Byrum)**

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Public Act No.	Enrolled House Bill	Enrolled Senate Bill	I.E.* Yes / No	Governor Approved Date	Filed Date	Effective Date	Subject
547		1175	Yes	7/25	7/26	07/26/02	**LOCAL GOVERNMENT;** Bonds; bonding authority of the higher education loan authority; modify. **(Sen. D. Byrum)**
548		1176	Yes	7/25	7/26	07/26/02	**LOCAL GOVERNMENT;** Bonds; bonding authority for financing student loan programs ; modify. **(Sen. D. Byrum)**
549	6074		Yes	7/25	7/26	07/26/02	**PROPERTY TAX;** Personal property; alternative energy system, vehicles, and technology; exempt. **(Rep. R. Richardville)**
Veto	4022					03/15/02	**TRAFFIC CONTROL;** Speed restrictions; speed limits; allow input by townships in setting certain speed limits. **(Rep. R. Jamnick)**
Veto	4990					07/23/02	**EDUCATION;** Special; membership on special education advisory board; revise. **(Rep. W. Kuipers)**
Veto		117				07/25/02	**SINGLE BUSINESS TAX;** Rate; accelerated reduction; provide for under certain circumstances. **(Sen. G. Steil)**

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MICHIGAN ADMINISTRATIVE CODE TABLE
(2002 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:

* * *

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

The following table cites administrative rules promulgated during the year 2000, and indicates the effect of these rules on the Michigan Administrative Code (1979 ed.).

MICHIGAN ADMINISTRATIVE CODE TABLE
(2002 RULE FILINGS)

No rules have been filed with the Secretary of State between August 1, 2002 and August 15, 2002. Michigan Register 2002, MR 15, therefore, does not contain a 2002 Administrative Code Table.

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