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August 27, 2018

(via email only)

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Re: In The Matter of the Proposed Rules of the Minnesota Pollution Control Agency Governing
Underground Storage Tanks; Revisor's ID Number 4360

Dear Librarian:

The Minnesota Pollution Control Agency (Agency) intends to adopt rules governing underground storage tanks. We plan to publish a Dual Notice in the August 27, 2018, State Register.

The Agency has prepared a Statement of Need and Reasonableness. As required by Minnesota Statutes, sections 14.131 and 14.23, the Agency is sending the Library an electronic copy of the Statement of Need and Reasonableness at the same time we are mailing our Dual Notice.

If you have questions, please contact me at 651-757-2527.

Yours very truly,

A handwritten signature in black ink that reads 'Yolanda Letnes'.

Yolanda Letnes
Rule Coordinator

YL:bt



STATEMENT OF NEED AND REASONABLENESS

Proposed amendments related to underground storage tanks

Minn. R. ch. 7150

**Minnesota Pollution Control Agency
Industrial Division
July 2018**

The *State Register* notice, this Statement of Need and Reasonableness (SONAR) and the proposed rule will be available during the public comment period on the Agency's Public Notices website:

<http://www.pca.state.mn.us/news/data/index.cfm?PN=1>

Agency contact for information, documents, or alternative formats:

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, braille, or audio.

To make a request, contact Yolanda Letnes, Rulemaking Coordinator,

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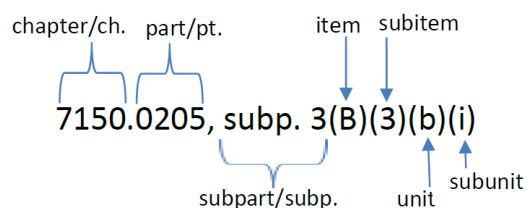
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Figure 1. Anatomy of a rule.



Acronyms or abbreviations

§ or §§ - Section or sections

40 CFR pt. 280 or Part 280 - Title 40, Code of Federal Regulations, Part 280

Agency or MPCA - Minnesota Pollution Control Agency

ATG - Automatic tank gauge or automatic tank gauging

CFR - Code of Federal Regulations

ch. - Chapter

Commissioner - Minnesota Pollution Control Agency, Commissioner

EPA - United States Environmental Protection Agency

Fed. Reg. - Federal Register

Minn. R. - Minnesota Rules

Minn. R. ch. - Minnesota Rules chapter

Minn. Stat. - Minnesota Statutes

MMB - Minnesota Management and Budget

MN - Minnesota

MORS - Minnesota Office of the Revisor of Statutes

MSFC - Minnesota State Fire Code

OAH - Office of Administrative Hearings

Psi - pounds per square inch

SONAR - Statement of Need and Reasonableness

UST - Underground Storage Tank

1. Introduction and overview

A. Introduction

The subject of this Statement of Need and Reasonableness (SONAR) is the amendment of certain rules of the Minnesota Pollution Control Agency (MPCA or Agency) governing the operation of regulated Underground Storage Tanks (USTs) in Minnesota. The amendments are aimed at adding conforming language for consistency with federal regulations. The amendments incorporate recent changes at the federal level that were adopted July 15, 2015, Federal Register, volume 80, pages 41566-41683 (80 Fed. Reg. 41566-41683). The proposed revisions address the topics listed below in item C. While a majority of the revisions are consistent with federal language, some of the proposed changes are more stringent and are discussed in further detail in section 5.B. of the SONAR. Some examples of areas where proposed requirements are more stringent than the federal requirements are:

- Introduction of potentially harmful substances.
- Requirement of double-poppet shear valves for new and replacement shear valves.
- Submersible pump sump requirements.
- Underdispenser sump requirements.
- Emergency stops.
- Agency-approved tester requirements.
- Sixty-day timeline for cathodic protection repairs.
- Conditions under which tank system replacement or permanent closure are required.
- Antisiphon device requirements.
- Positive shutoff for line leak detection at unattended card-lock facilities.

This SONAR does not discuss existing UST rules that the MPCA does not propose to modify, including relocated requirements, because the need for and reasonableness of these rules was addressed in the respective SONAR listed in SONAR Attachment 1.

B. Statement of general need

Leaking USTs have led to groundwater contamination and significant cleanup costs in Minnesota. The clean-up costs have often been borne by the citizens of Minnesota because the former UST owners responsible for the tanks were no longer in business or lacked adequate assets to pay for cleanup. Due to rising concern with leaking USTs throughout the State, the MPCA was authorized and directed by the 1985 Minnesota Legislature to adopt rules applicable to USTs as necessary to protect human health and the environment under Minnesota Statutes section 116.49 (Minn. Stat. § 116.49).

The inception of the Minnesota rules in 1991, along with the deadline for upgrading existing UST systems in 1998, has had positive effect in reducing the number of releases and amount of product released to the environment. Based upon the MPCA's UST database, Minnesota currently has an aging infrastructure of tank systems where approximately 60% of the systems are over 20 years old. The industry standard for the life of a tank system is approximately 20-30 years before major repair or replacement is needed. Minnesota does not have a sunset date for tank systems, but the need to have clear regulations, which address maintenance, repairs, and replacement of this aging infrastructure, is paramount to reduce or eliminate the risk of future releases from UST systems.

Federal law also has requirements to protect against such releases to the environment. The United States Environmental Protection Agency (EPA) first adopted regulations governing USTs in 1988. EPA can delegate implementation of those requirements to states. Minnesota currently has “state program approval” from EPA, which means Minnesota’s rules meet the federal requirements and the MPCA enforces state UST requirements in lieu of an EPA enforcement program. See 66 Fed. Reg. 59,713 (Nov. 30, 2001) (“Minnesota: Final Approval of State Underground Storage Tank Program”).

On July 15, 2015, the EPA published final revisions to UST regulations in the Federal Register. See [80 Fed. Reg. 41566-41683](#). The new revisions were to title 40, Code of Federal Regulations, Part 280 “Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST)” (40 CFR pt. 280 or Part 280). With the promulgation of the revised regulations in 2015, Minnesota’s rules no longer meet all federal minimum requirements. To maintain state program approval status, the MPCA needs to modify state UST rules to comply with the minimum requirements of 40 CFR pt. 280. If the MPCA does not modify state rules to meet the minimum requirements of 40 CFR pt. 280, the EPA will have jurisdiction to enforce those regulations.

The passage of this rule is needed to maintain federal funding and continue the effective state-federal partnership in protecting the human health and the environment. The MPCA has developed expertise in the areas of UST compliance, UST enforcement, and how to prevent releases to ensure the protection of human health and the environment. The MPCA relies heavily on federal funding to operate and maintain the UST compliance, assistance, and enforcement programs. Federal funding, when combined with state funding, has been an important factor in Minnesota’s UST regulatory oversight program for many years.

The MPCA believes that meeting the new minimum federal regulations will reduce the number of releases to the environment. However, experience gained during the last 27 years of program implementation shows that there is an additional need for state-specific requirements to address certain problems. These state-specific requirements are discussed in this SONAR. Since the MPCA last revised its UST rules in 2009, industry standards have evolved and new technologies have become more prevalent in the industry. The MPCA is proposing amendments to UST rules that are needed to incorporate and clarify appropriate use of these new technologies and industry standards to minimize the risk of releases from UST systems in Minnesota. In addition, the MPCA has identified a need to comprehensively review and address problems with redundancy, organization, and clarity of the rules as identified in this SONAR.

C. Scope of the proposed amendments:

The proposed amendments affect Minnesota Rules chapter 7150 (Minn. R. ch. 7150), and address requirements resulting from the final 2015 amendment of 40 CFR pt. 280 that address:

- Adding periodic operation and maintenance requirements for UST systems.
- Removing certain deferrals.
- Adding new release prevention and detection technologies.
- Updating codes of practice.
- Editorial and technical corrections.

The Agency is also proposing amendments that exceed federal requirements as outlined in section 1.A. of the SONAR. The proposed amendments will also clarify how new tank technologies apply to the regulations.

2. Background

The MPCA explained the purpose and history of adopting UST rules in the SONAR of the most recent revision of the rules:

"The purpose of these rules (Minn. R. ch. 7150) is to prevent the improper design, installation, use, maintenance, and closure of USTs and their appurtenances such as piping and dispensers, which could adversely affect water quality and the public health, safety, and general welfare through releases of petroleum or hazardous materials to the land, groundwater, and surface water of the state of Minnesota (State).

Due to rising concern with leaking underground storage tanks throughout the State, the MPCA was authorized and directed by the 1987 [sic: 1985] Minnesota Legislature to adopt rules applicable to USTs as necessary to protect human health and the environment (Minn. Stat § 116.49). In 1988, the United States Environmental Protection Agency (EPA) published its final rule outlining technical requirements for USTs and state UST program approval (40 CFR § pt. 280).

In 1991, the MPCA published final rules for USTs (Minn. R. ch. 7150). The 1991 rules addressed standards for design of new (post-1991) petroleum and hazardous material USTs and appurtenant piping, such as cathodic protection and secondary containment and requirements for upgrading existing (pre-1991) UST systems by December 22, 1998, the federal UST upgrade deadline. New and upgraded tanks are required to have cathodic protection, release detection, spill prevention equipment, and overfill protection equipment. The majority of existing UST systems were either upgraded to meet the new requirements or taken out of service by the December 22, 1998, deadline.

Despite the existence of the UST rule, leaks and spills from UST systems have continued to occur in Minnesota and around the nation. On August 8, 2005, President Bush signed the Energy Policy Act of 2005 (Act). Title XV, subtitle B of this Act contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the federal UST program. The Energy Policy Act of 2005 significantly affects federal and state underground storage tank programs, requires major changes to these programs, and is aimed at reducing underground storage tank releases to the environment. The UST provision of the Energy Policy Act of 2005 focuses on preventing releases. Among other things, the Act expands eligible uses of the Leaking Underground Storage Tank (LUST) Trust Fund, and includes provisions regarding facility inspection frequency, training of facility operators, delivery prohibition in the case of non-compliance, public availability of tank release records and owner/operator compliance records, groundwater protection through either secondary containment or manufacturer/installer financial assurance, and cleanup of releases that contain oxygenated fuel additives. A variety of deadlines were given to state programs to implement these provisions.

The MPCA revised Minn. R. ch. 7150, effective March 24, 2008; to comply with the secondary containment requirement of the Energy Policy Act, as well as to update and clarify existing language to account for new technologies, deadlines no longer applicable, common owner/operator compliance problems, and other concerns that have emerged during the past 16 years of the UST program. The other requirements of the Act were addressed in the 2007 SONAR...."

SONAR Attachment 1 (34 SR 1610 SONAR, July 13, 2009, at 1-2).

As discussed above, the 1988 federal rule required tank systems to upgrade or install equipment to meet the cathodic protection, leak detection, spill and overfill prevention requirements. The recent

revisions to 40 CFR pt. 280 (2015) now include additional operation, maintenance and testing requirements to assure the integrity and proper functioning of existing tank systems. Furthermore, some new requirements to 40 CFR pt. 280 (2015) were established to meet the Energy Policy Act of 2005, such as secondary containment requirements, operator training requirements, and sump inspection requirements.

Minnesota is obligated to revise the state UST rules to meet minimum requirements of 40 CFR pt. 280 according to Minn. Stat. § 116.49. Some of the new requirements in 40 CFR pt. 280, such as monthly sump inspections, secondary containment requirements and operator training and certification requirements, were previously added to Minn. R. ch. 7150 (in 2008 and 2009, respectively) to meet the requirements of the Energy Policy Act of 2005. The current proposed rule revisions address amendments needed to address the 2015 40 CFR pt. 280 amendments outlined in section 1.C. In addition to meeting the minimum requirements of 40 CFR pt. 280, the MPCA has identified a need to comprehensively review and address problems with redundancy, organization, and clarification of the rules as described in section 1.B, 1.C, and throughout this SONAR. For these reasons, the MPCA believes there is a need for the proposed changes.

3. Public participation and stakeholder involvement

The MPCA has provided the required notifications to the public and the entities identified in statute. A Request for Comments was published in the November 9, 2015, *State Register*. The notifications required under Minnesota Statutes chapter 14 (Minn. Stat. ch. 14) will be provided at the time the amendments are proposed. The MPCA intends to publish a Dual Notice in the *State Register* and to provide additional notice of its activities to all parties who have registered their interest in receiving such notice.

The MPCA conducted the following activities to notify potentially interested parties of the rule project:

- Established a self-subscribing rule-specific mailing list to provide information to interested and affected parties: <http://public.govdelivery.com/accounts/MNPCA/subscriber/new>.
- Posted information on the proposed amendments in its rulemaking docket. The docket is maintained monthly and available online.
- Established a rule-specific webpage.
- Sent an electronic message via GovDelivery to interested parties encouraging them to register to receive rulemaking information on the rule project.
 - October 26, 2015 – Message sent to self-subscribers of the *New rule announcement* topic list expressing an interest in receiving notice of all new Agency rules.
 - November 9, 2015 – Message communicating Request for Comments publication sent to self-subscribers of the *UST Update Rule* topic list.
- Sent an electronic message via GovDelivery to UST owners and operators, UST contractors and interested parties encouraging them to register to receive rulemaking information on the rule project.
 - March 1, 2017 – General update on rule status. This message was forwarded to the Agency regulated parties list and contractors list. This message was sent to regulated parties and contractors.
 - October 30, 2015 – General message discussing content of rule with invitation to self-subscribe to receive future notices. This message was sent to regulated parties.
 - October 30, 2015 – General message discussing content of rule with invitation to self-subscribe to receive future notices. This message was sent to contractors.
- The MPCA established the UST advisory committee consisting of trade organizations, tank owner/operators, UST contractors, and government entities which are owners and operators of USTs. The MPCA planned various advisory committee meetings and released a preliminary draft of the proposed rule language to the advisory committee on February 2, 2016, for focused feedback. Meeting dates are listed below:
 - On February 10, 2016, MPCA staff met with the advisory committee to obtain feedback on the general concept of the proposal. After a general discussion of the concept, the meeting focused primarily on definitions and tank system design criteria.
 - On February 24, 2016, MPCA staff met with the advisory committee to obtain feedback on changes made to the preliminary draft rule based on the February 10, 2016, meeting. The

advisory committee also discussed proposed requirements for maintaining, testing, and repairing UST systems.

- On March 9, 2016, MPCA staff met with the advisory committee to obtain feedback on language changes made based on prior advisory committee feedback. The topics discussed were issues arising from conducting periodic facility inspections and third-party testers.
- On March 23, 2016, MPCA staff met with the advisory committee to discuss changes made to the preliminary draft rule language, leak detection requirements, and UST closure.
- On April 13, 2016, MPCA staff met with the advisory committee to discuss questions comments and concerns from previous meetings, particularly the concept of agency-approved testers.
- The Agency carefully considered all of the advisory committee meeting feedback, federal requirements, and Agency needs and made appropriate changes. On June 9, 2016, the Agency released edits to the preliminary draft to the advisory committee. On June 22, 2016, MPCA staff met with the advisory committee to discuss edits made to the preliminary draft and to seek further advisory committee feedback.
- MPCA staff attended trade organization shows and gave formal presentations of the proposed draft rules to attendees.
 - On March 21, 2016, MPCA staff presented at the National Institute of Storage Tank Management (NISTM) trade show located in Bloomington, MN.
 - On April 12, 2016, MPCA staff presented at the Minnesota Petroleum Marketers Association convention located in St. Paul, MN.
 - On March 13, 2017, MPCA staff presented at the NISTM trade show located in Bloomington, MN.
- Because some of the proposed changes involve federal requirements, the EPA was included in early discussions and throughout the process.
- The MPCA held seven statewide public meetings at locations around the state (Marshall, Detroit Lakes, Baxter, Duluth, Shakopee, Rochester, and Roseville) to discuss the preliminary draft rule requirements. The Agency provided updates on the content of the preliminary draft rule and answered questions about the requirements. Meetings were held from January 2018 to March 2018.

4. Statutory authority

The MPCA's statutory authority to make the proposed changes is based on the specific rulemaking authority relative to each of the areas being amended. Minn. Stat. § 116.49 directs the MPCA to "adopt rules applicable to all owners and operators of USTs. The rules must establish the safeguards necessary to protect human health and the environment."

The following table summarizes underlying authority for each of the rule efforts for UST requirements in Minn. R. ch. 7150.

Table 1. Previous rulemaking information.

Adoption or withdrawal date, <i>State Register</i> citation, and Minnesota Office of the Revisor of Statutes (MORS) number	Description	Statutory authorities
Withdrawal on 2/19/91 15SR264 R-1470	The MPCA was authorized and directed by the legislature in 1985 to adopt rules applicable to all owners and operators of USTs. SONAR was signed on 6/15/1990.	Minn. Stat. § 116.49 (1988)
Adopted on 7/8/91 16SR59 R-1834	The MPCA was authorized and directed to adopt rules applicable to all owners and operators of USTs. SONAR was signed on 1/10/1991.	Minn. Stat. § 116.49 (1990)
Adopted on 8/21/2000 25SR556 R-03091	Amendments to ch. 7150 to ensure consistency with federal requirements and various clarification amendments to ch. 7001. SONAR was signed 3/31/2000.	Minn. Stat. § 115.03, subd. 1(e)(3), and Minn. Stat. § 116.49, subd. 1
Adopted on 3/17/2008 32SR1751 R-03689	Amendments required as a result of the Energy Policy Act of 2005, excluding operator training requirements. SONAR was signed 7/24/07.	Minn. Stat. § 116.49
Adopted on 5/17/10 34SR1610 R-03863	Amendments to address operator training requirements as a result of the Energy Policy Act of 2005. SONAR was signed 7/13/2009.	Minn. Stat. § 116.49

5. Reasonableness of the amendments

A. General reasonableness

As discussed in section 1.B. (Statement of general need), with the promulgation of EPA rule revisions in 2015, the MPCA identified a need to protect against releases from USTs. The federal requirements will reduce the risk of such releases, but program implementation over the past 27 years shows that there is an additional need for state-specific requirements to address certain problems that have come about since the last rule revision in 2009. Updating the existing rules will satisfy the requirements of Minn. Stat. § 116.49, which required adoption of rules necessary to protect human health and the environment.

Updating the rules is a reasonable approach because alternative approaches would create duplication or confusion. If the MPCA did not adopt the updated federal requirements, the Agency would lose its state program approval from EPA, and EPA would begin to regulate USTs. Meanwhile, the MPCA's existing rules would still be in place and the MPCA would have overlapping enforcement authority with EPA. The MPCA would also need to identify other methods to impose the requirements that it has identified as necessary to ensure protection of human health and the environment. Adopting other methods (e.g., permits) would create new administrative and regulatory burdens for UST owners and operators, as well as confusion over which agency had regulatory authority over particular issues. If the MPCA repealed the UST rules, it would be inconsistent with the rule requirement in Minn. Stat. § 116.49; the MPCA would maintain tank contractor certification rules authorized by section 116.491; and EPA would assume oversight of USTs in the state, but not the contractor certification. This would create similar confusion and inconsistency. In contrast, revising the MPCA's UST rules provides a single regulatory agency administering the program, providing consistent oversight as the current implementation. UST owners and operators will have the same point of contact they have now. As a result, the proposed changes to Minn. R. ch. 7150 are more reasonable than the alternative methods to address the needs that MPCA identified.

Finally, the MPCA has identified a need to comprehensively review and address problems with redundancy, organization, and clarification of the rules as identified in this SONAR. The Agency believes that it is reasonable to propose changes to Minn. R. ch. 7150 to address these needs because a better organized rule will make finding applicable requirements easier for regulated parties and MPCA staff. The proposed clarifications will help regulated parties and MPCA staff interpret regulations consistently. The MPCA notes that the reorganization of information results in existing requirements being moved to different locations throughout the proposed rule. The need and reasonableness of the relocated requirements has already been established in previous rulemaking SONARs listed in SONAR Attachment 1 and those requirements will generally not be rejustified, consistent with Minn. R. 1400.2070, subpart 1.

B. Specific reasonableness

The specific reasonableness of each proposed change is discussed below.

Some of the amendments have resulted in the re-numbering or changes to the lettering of items and subitems. Those types of formatting changes are made through the authority of the Minnesota Office of the Revisor of Statutes (MORS) and the MPCA will not explain or justify those changes in this SONAR.

CHAPTER 7150 - UNDERGROUND STORAGE TANKS; PROGRAM

The Agency has completely reorganized Minn. R. ch. 7150 to improve its readability. General information to guide the reader to the major changes is included in SONAR Attachment 3.

GENERALLY

1. Part 7150.0010 APPLICABILITY.

This existing part establishes the applicability of Minn. R. ch. 7150 to owners and operators of underground storage tank systems (UST systems).

Subp. 2. Exclusions. Subpart 2 is an existing subpart that establishes exclusions to Minn. R. ch. 7150.

Item A. On July 15, 2015, EPA amended federal regulations related to USTs. See SONAR Attachment 5. The Agency is amending existing Minnesota rules to conform to changes to title 40, Code of Federal Regulations, Part 280 (40 CFR pt. 280). Specifically, this item is amended to include hazardous substances listed in Subtitle C of the Solid Waste Disposal Act as exclusions under 40 CFR § 280.10(b)(1). The proposed changes are equivalent to federal rules.

Item B. For the same reasons described above, the MPCA is amending this item to include the exclusion to wastewater treatment tanks regulated under Section 402 or 307(b) of the federal Clean Water Act - 40 CFR § 280.10(b)(2). The proposed changes are identical to federal rules.

Item K. Under the existing exclusion, the Agency believes that a UST system owner or operator could mistakenly interpret that a hazardous substance stored in a pit dug in the ground would meet the existing exclusion to Minn. R. ch. 7150. Such activities would be within the scope of this chapter. The federal regulations similarly do not exclude such activities. Storing a hazardous substance in such a pit does not reduce the risk of harm to human health or the environment. Instead, the risk of harm to humans or the environment increases. The exclusion for surface impoundments, pits, ponds, or lagoons applies to structures designed to contain storm water. These structures are regulated under chapter 7090. Substances stored in surface impoundments, pits, ponds, or lagoons under chapter 7020 pose a limited risk to human health or the environment. Thus, the Agency is adding clarifying language to ensure owners or operator understand the exclusion.

Items N and O. The Agency is making minor formatting changes to accommodate the subsequent deletions of existing items P, Q, and R.

Item P. To comply with 40 CFR § 280.10(c)(3), UST systems containing radioactive materials must be partially regulated. UST systems in existing part 7150.0010, subp. 2 are exempt from regulation. Therefore, UST systems containing radioactive materials should not be included in this subpart that lists exempt tanks. UST systems containing radioactive materials are now addressed in part 7150.0010, subp. 6(C).

Item Q. To comply with 40 CFR § 280.10(c)(4), emergency generator UST systems at nuclear power generator facilities must be partially regulated. Therefore, they are no longer fully exempt, and have been removed from this subpart. Emergency generator UST system requirements are addressed in part 7150.0010, subp. 6(D).

Item R. To comply with 40 CFR § 280.10(c)(2)(i), airport hydrant distribution systems must be partially regulated. Therefore, they are no longer fully exempt, and should not be in this subpart. The requirements for airport hydrant distribution systems are now located in part 7150.0010, subp. 6(B)(1).

Subp. 4. Emergency power generator tanks. Currently emergency power generator USTs are fully regulated with the exception of having leak detection. As part of the 2015 revisions to 40 CFR §

280.10(a)(1)(iii), the EPA removed the language that emergency power generator USTs are excluded from having leak detection or maintaining leak detection records. Emergency power generator USTs will now be fully regulated under Minn. R. ch. 7150 and the Agency proposes to repeal subpart 4 for consistency with the federal requirement.

Subp. 5. Heating oil tanks. The agency proposes to add three new references to the existing requirement:

- Part 7150.0090, subp. 7 adds a requirement that owners and operators that purchase heating oil UST systems must notify the Agency of the ownership change. This requirement is important to ensure that the Agency is able to contact the new owner and operator of a heating oil UST system should that need arise.
- Part 7150.0250, subp. 2 replaces the current reference to part 7150.0010, subp. 10, which is obsolete. This requirement will ensure problems with heating oil tanks are corrected, thereby reducing risk to the environment and human health. Imposing the same requirements is reasonable because the risks are similar to those of other tanks.
- Part 7150.0345, subp. 2 adds a requirement that the owners and operators must report releases and suspected releases. This is reasonable because such releases could pose a risk to the environment or human health. It is reasonable to add cross-references to these requirements to ensure that owners and operators are aware of their applicability. The reasonableness of each specific requirement is discussed in detail under those subparts.

Subp. 6. Partially excluded tanks. For consistency with 40 CFR § 280.10(c), the Agency proposes to establish this new subpart. This subpart lists the types of tanks under items A to D (wastewater USTs, USTs containing radioactive materials, emergency generator USTs at nuclear power facilities, airport hydrant fuel systems, and field-constructed tanks) that qualify as partially excluded tank systems. Partially excluded tanks are not subject to all requirements of Minn. R. ch. 7150, and it is reasonable to list applicable requirements to ensure owners and operators understand what requirements apply to partially excluded tanks.

The partially excluded tanks must meet the parts listed below.

- 7150.0010 (Applicability)
- 7150.0030 (Definitions)
- 7150.0090, subp. 2 (Notification of installation, replacement, or change in status)
- 7150.0205, subps. 1, item B (Tanks); 2 (Codes of practice for tanks); 3, item B (Piping); and 4 (Codes of practice for piping)

Additionally, airport hydrant fuel systems and field-constructed tanks must meet part 7150.0451 (UST systems with field-constructed tanks and airport hydrant fuel distribution systems), which references the requirements of 40 CFR pt. 280, Subpart K. With the exception of meeting the notification requirements of part 7150.0090, subp. 2, all of the above requirements are based upon 40 CFR § 280.10. The notification requirements will allow the MPCA to contact a facility owner or operator if an issue arises that necessitates MPCA involvement.

Subp. 7. Other potentially harmful substances. The Agency proposes to add this requirement to ensure that owners and operators are aware of the applicability of part 7150.0100, subp 9, to USTs when handling “...any liquid or solid substance or other pollutant...” subject to Minn. Stat. § 115.03, subd. 1(3) regulations regarding other potentially harmful substances are proposed in this section to assure compatibility with these substances. See the discussion under part 7150.0030, subp. 32a.

2. Part 7150.0030 DEFINITIONS.

This part establishes terms and abbreviations necessary for regulated parties to comply with applicable UST requirements and for regulators to interpret requirements consistently. The reasonableness of all definition change is discussed under this part and applies to changes made throughout the proposed rule for these specific amendments. For example, existing references to “underground storage tank” are now replaced with “UST” throughout Minn. R. ch. 7150.

Subp. 1. Scope. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS.

Subp. 2. Agency. The MPCA is modifying the definition of “Agency” to include the Minnesota duty officer in the event a regulated substance is released or spilled. The notification requirement in part 7150.0100 subpart 11(B) requires notification of spills consistent with Minn. Stat. § 115.061. That section requires notification to the “agency.” Incorporating the duty officer into the definition of “agency” is needed because the MPCA consists of a large diversified group of employees that are not all trained in the proper procedures to take in responding to the release or spill of a regulated substance. The Minnesota duty officer program was developed for providing assistance for emergencies, accidents or incidents and for dispatching response personnel to hazardous substance and petroleum spills and releases. Including the Minnesota duty officer in the definition of Agency allows the owner or operator to notify the duty officer while complying with the statute, thereby minimizing the risks to human health and the environment in the event of a spill or release of a regulated substance.

Additionally, throughout Minn. R. ch. 7150, the term “Commissioner” has been replaced with the term Agency for specific circumstances. Per statute, all authority regulating USTs comes from the Commissioner. In those instances where the Commissioner determines, approves, directs or makes similar actions, no changes to the term have been made. In those cases where prenotification, records or documentation are required to be submitted or examinations to be administered, the term Commissioner has been replaced with the term Agency for clarification. The Commissioner is the seat of authority. The Agency handles the record keeping, notices and examinations.

Subp. 2a. Agency-approved tester. Currently, Minnesota-certified tank contractors or third-party testing contractors conduct most tank system testing in Minnesota. They have the training, experience, knowledge, and appropriate insurance to test tank system components. The MPCA is proposing to make this a requirement to ensure accurate testing of tank systems. Requiring minimum standards is reasonable to avoid inaccurate test results that would increase the risk of a release to the environment. The Agency originally considered requiring all testing associated with this chapter to be conducted by a third-party testing firm or certified contractor with no affiliation to the facility. During the advisory committee meetings, representatives of some regulated parties expressed a desire for an alternative to hiring a third party contractor to reduce costs. The Agency considered the feedback and determined that an alternative option with specified criteria was a reasonable request to requiring third-party testing. The intent of creating an agency-approved tester is to establish a definition describing who is allowed to inspect and test components of a UST system according to the conditions proposed in part 7150.0216, subp. 6(A).

Subp. 2b. Airport hydrant fuel distribution system. The Agency is amending existing Minnesota rules to conform to changes to 40 CFR pt. 280. Specifically, the MPCA is proposing to include the definition in 40 CFR § 280.250. The proposed changes are equivalent to federal rules.

Subp. 3. Appurtenances. The MPCA is proposing to replace the word “device” with “components of a UST system” to further clarify what UST appurtenances are. Federal regulations, 40 CFR § 280.12, use

the term “ancillary equipment” to describe components of a UST system. Ancillary equipment and appurtenances have the same meaning.

Subp. 4. Beneath the surface of the ground. The MPCA is amending the existing definition to mean below the plane created by the ground surface. In the past, there has been some confusion because “beneath the surface of the ground” could mean below the ground surface or buried in soil. Additionally, the word “ground” was not defined and led to confusion: Was “ground” pavement, gravel, dirt, or some other surface? The revised definition defines a fixed plane or surface upon which any point below that plane or surface is considered beneath the surface of the ground. The ground surface could be created by soil, gravel, blacktop, concrete, or other earthen material. The federal definition uses the words of the term in the definition, which is discouraged by the MORs.

Subp. 4a. Business hours. Proposed revisions to Minn. R. ch. 7150 include the new term “business hours” for operator requirements. Establishing a definition for business hours is needed for determining the type of pipe leak detection that may be used at a UST facility. This definition is also for determining when a Class A, B, or C operator must be on site to oversee the operation of the UST system. The Agency considered three possible time periods to define “business hours”:

- ≥ 8 hours
- < 6 hours
- 6 hours

An 8-hour option would be more than sufficient to perform the duties required of a class A, B, or C operator according to the requirements of part 7150.0445, subpart 1, and to conduct proper line leak detection according to part 7150.0340, subpart 2. However, not all employees work 8 hours and it would not be reasonable to establish this standard. Also, ≥ 8 hours has the potential to negatively affect small business owners and operators with UST systems with no added environmental or health benefit. Therefore, the ≥ 8 -hour option is not reasonable.

A time period of < 6 hours would not allow a sufficient amount of time for class A, B, or C, operators to conduct the requirements of part 7150.0445, subpart 1. Therefore, the MPCA determined that < 6 hours is not reasonable. If a business is open less than 6 hours a day it creates a higher risk of a line leak going undetected according to part 7150.0340, subpart 2.

A time period of 6 hours is sufficient time for class A, B, or C, operators to conduct requirements of part 7150.0445, subpart 1, and proper line leak detection according to part 7150.0340, subp. 2. Since some employees work an 8-hour day, the Agency decided to use a 6-hour time period to give class A, B, or C operators sufficient time to conduct operator requirements.

Subp. 5. Cathodic protection. The MPCA regulates aboveground and underground tank systems. Therefore, the Agency proposes to replace the term “tank system” with “UST system” to better describe the tank system that is being regulated under the proposed revisions. The proposed change will clarify the existing requirement.

The term “galvanic” is an archaic term. The Agency proposes to replace the archaic term with the more commonly used “sacrificial” term. The existing definition has not changed with these minor revisions. The previous justification remains intact. Corrosion protection can be applied to a metal surface by either isolating that surface from the causes of corrosion, or by making the metal surface part of an electrochemical cell. The reaction that creates an electrochemical cell is called galvanic or cathodic. Cathodic protection is a means of providing corrosion protection to a UST system by creating a cathodic reaction on the metal surfaces of the UST system. There are two methods of creating the cathodic reaction. They are through the application of sacrificial anodes or impressed current.

Subp. 6. Cathodic-protection tester. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS.

Subp. 8. Permanent closure. The existing definition in part 7150.0030, subp. 8 is being deleted for relocation purposes. For the same reasons discussed under subp. 48, the definition has been updated to include the term “UST system” in place of “underground storage tank” and is now listed under subpart 34a. The proposed revision is minor and simply keeps the definitions in alphabetical order.

Subp. 8a. Class A operator. The existing definition for Class A operator is being relocated from part 7150.0211, subp. 1 to the definitions section of part 7150.0030. The proposed revision will make it easier for regulated parties to locate definitions in one section of the rule. For the same reasons discussed under subp. 51, the Agency replaced the term “underground storage tank system” with “UST system.”

Subp. 8b. Class B operator. As discussed above, the Agency relocated the part 7150.0211, subp. 1(B) to part 7150.0030, subp. 8b and replaced the term “underground storage tank system” with “UST system.”

Subp. 8c. Class C operator. As discussed above, the Agency relocated part 7150.0211, subp. 1(C) to part 7150.0030, subp. 8c and replaced the term “underground storage tank system” with “UST system.”

Subp. 11. Connected piping. For the same reasons discussed under subp. 51, the Agency replaced the term “underground storage tank system” with “UST system.” Additionally, the Agency replaced the term “tank system” with “UST system” to clarify whether the term applied to aboveground or underground tanks.

Subp. 12a. Containment sump. For conformity with federal rules (40 CFR § 280.12), the Agency is proposing to add an equivalent definition for containment sump. The federal definition was grammatically formatted to fit the MORS style.

Subp. 16. Excavation zone. For the same reasons discussed under subp. 51, the Agency replaced the term “underground storage tank system” with “UST system.” Additionally, the Agency replaced the term “tank system” with “UST system” to clarify whether the term applied to aboveground or underground tanks.

Subp. 18a. Field-constructed tank. For conformity with federal rules (40 CFR § 280.250), the Agency considered adding an equivalent definition to the federal definition for field-constructed tank. However, 40 CFR § 280.250 does not clearly address retrofit USTs where a lining, or tank, is installed inside an existing UST. Retrofit tanks are unlike the examples given in the federal rule, and as a result the MPCA does not consider retrofit USTs to be field-constructed tanks. Field-constructed tanks are only partially regulated. To be no less protective of human health and the environment, the MPCA considers retrofit tanks to be new USTs, which are fully regulated.

Subp. 22. Hazardous substance.

Item A. The term “hazardous material” is not used in state statutes and the Agency is proposing to replace the term with “hazardous substance” to conform to federal rules under 40 CFR pt. 280.

The Agency is also proposing to include a reference to “subtitle C of the Solid Waste Disposal Act, United States Code, title 42, section 6921 et seq.” to conform to the requirements of 40 CFR § 280.10(b).

The definition for a “regulated substance” in 40 CFR § 280.12 makes reference to a petroleum which is liquid at 60 degrees Fahrenheit and 14.7 pounds per square inch (psi). This reference does not belong in the definition for a hazardous substance, and has been relocated to the definition for petroleum.

Item B. This item is amended to reflect changes necessary after the revisions to item A.

Subp. 23. Hazardous material underground storage tank system. The Agency is deleting this definition because it is now obsolete.

Subp. 25a. Lessee. The existing definition in part 7150.0030, subp. 8 is being deleted for relocation purposes and is now listed under subp. 25e. The definition was updated to reflect the change to “UST system” as discussed under subpart 51. The proposed revision is minor and simply keeps the definitions in alphabetical order.

Subp. 25b. Impressed current or impressed-current system. Impressed current is an important method of corrosion protection for components of metallic UST systems. The definition is added to distinguish impressed current from other methods of corrosion protection. The definition is based upon terms and definitions commonly used in the corrosion protection industry. It is reasonable to establish this definition to ensure regulated parties and the Agency maintain a common understanding of the term for regulation purposes.

Subp. 25c. Leak. The words “leak” and “release” are often used interchangeably at the state or federal level; however, the terms have different meanings and the Agency believes it is reasonable to clarify that distinction. A leak occurs when a regulated substance, or any other potentially harmful substance, is discharged from a UST system component in a way other than intended. A leak is unintentional, and may or may not come into contact with soil or surface or ground water. A leak that evaporates before coming in contact with soil or water is often described as a weep. The leaked substance may be captured within secondary containment. However, if the leaked substance escapes and comes into contact with soil or ground or surface water, then the leak becomes a release.

While the Agency seeks to clarify the terms leak and release for the proposed revisions, the Agency understands that scenarios may occur that cause owners and operators to use the terms interchangeably. For example, owners and operators are required to conduct monthly sump inspections to look for releases. However, looking for releases may not be possible because the point of a release is likely covered by soil. In this case, the owner or operator is really looking for a leak in the sump to be used as an indicator of a release. In this example, the word release takes on the meaning of a leak for an owner and operator.

Subp. 25d. Leak detection. Federal rules (40 CFR pt. 280) and Minn. R. ch. 7150 use the terms “leak detection” and “release detection” interchangeably. For all practical purposes, they have the same meaning. See the explanation for release detection in subp. 42.

Subp. 25e. Lessee. See subp. 25a.

Subp. 25f. Lining or internal lining. As fuels change and installation costs continue to rise, increasing numbers of USTs are being lined for compatibility, secondary containment, and UST repairs. The newly lined USTs are subject to additional rules and requirements. The Agency believes it is critical to include a definition for lining to give owners and operators not familiar with tank linings a basic idea of what a lining is. This definition will clarify how to comply with applicable requirements for owners and operators of newly lined USTs.

Subp. 25g. Liquid tight. Chapter 7150 makes several references to “liquid tight.” The Agency is proposing this new definition to ensure that regulated parties and the MPCA have the same understanding for the term. The definition has two parts. The first part is that no liquid may leak from any UST component. Preventing releases from UST components is the main purpose of the federal and Minnesota UST rules.

The second part is that no subsurface water may infiltrate into any UST, pipe, or secondary containment. Water infiltrating into a UST, suction pipe, or secondary containment area is often the first indicator that

there is a hole or leak in that component. Maintaining a UST component liquid tight avoids water infiltration and will help assure that no regulated substance or other potentially harmful substances moves through that component and is released to the environment.

Subp. 27. Motor fuel. The MPCA proposes to amend the existing definition to conform to federal changes in 40 CFR pt. 280. The change is equivalent to federal rules.

Subp. 29a. Noncorrodible material. Early UST systems used fiberglass-reinforced plastic as a construction material for USTs and piping. Since then, many new materials have been developed and certified for use in UST systems. Examples of newer materials would include urethane coatings, Kevlar-reinforced plastics, and ceramic materials. The Agency believes it is reasonable to establish a definition that allows the flexibility to use future materials. Noncorrodible materials do not include components made of any metallic material, such as stainless steel, carbon steel, or bronze because these materials are subject to corroding when in contact with soil.

Subp. 32. Operator. The Agency is proposing minor changes to make the requirements more easily understood. For the same reasons described under subp. 22, item A, the Agency is replacing the term “hazardous material” with “hazardous substance.” The basic definition has not changed.

Subp. 32a. Other potentially harmful substances.

In the last 10-15 years, unregulated substances have been introduced into USTs that may pollute waters of the state if released to the environment. Two examples of these substances are Diesel Exhaust Fluid (DEF), which is used to control emissions from diesel engines, and chlorides (such as sodium chloride and magnesium chloride) which are used for icing and dust control on roadways. When properly used, these substances are intended to be discharged to the environment in small quantities at controlled rates. However, if released to the environment in large quantities, particularly underground, these substances have the potential to contaminate ground water. The MPCA has determined it needs to partially regulate these substances stored in UST systems to protect human health and the environment.

Minnesota Statutes section 115.03, subdivision 1(e)(3), states that the Agency shall prohibit

... the storage of any liquid or solid substance or other pollutant in a manner which does not reasonably assure proper retention against entry into any waters of the state, or that would be likely to pollute any waters of the state.

The Agency believes that creating this definition is useful because it aids in complying with the statute. Early working drafts of the proposed rules attempted to use the term “other regulated substances” to describe the substances in the statute above. However, the term was difficult to implement because it was too similar to the already existing term “regulated substances.” The Agency developed the term “other potentially harmful substance” to address the substances in the statute above that are not within the definition of regulated substance. The term “other potentially harmful substances” identifies those liquids, solids or pollutants that may cause pollution of the waters of the state if released to the environment. Pollution of water is a defined term in Minnesota Statutes, at section 115.01, subdivision 13.

The statutory phrase “...in a manner which does not reasonably assure proper retention...” also creates difficulties in defining other potentially harmful substances and how they might be regulated. Requiring leak detection, secondary containment, and compatibility would “reasonably assure” the substance would not be released to the environment. However, if those requirements were applied to other potentially harmful substances, then there would be little distinction between the requirements for fully regulated substances and other potentially harmful substances.

The Agency does not believe that other potentially harmful substances need to be regulated to the same extent as a regulated substance. The other potentially harmful substances identified above are aqueous solutions and are intended to be discharged to the environment in order to function as intended by the manufacturer. The elements in these aqueous solutions that pose a concern, when used properly, are discharged in de minimis quantities. The goal of the Agency is to prevent the release of these other potentially harmful substances from a UST in concentrations great enough to cause pollution to waters of the state. Currently, the Agency is only aware of, and concerned about those substances identified above. The Agency believes that the most important aspect of storing any other potentially harmful substance is that the UST that the substance is being stored in does not degrade and fail. This means the UST must be compatible to the substance being stored, which is consistent with the statutory focus on proper storage and retention. As a result, the only requirement for other potentially harmful substances in the proposed rules is that the UST must be compatible with the substance being stored according to part 7150.0100, subp. 9 (Compatibility), to ensure that owners and operators know that the UST must be compatible with the substance being stored.

The Agency is proposing language that complies with Minn. Stat. § 115.03, subd. 1(e)(3). It is impossible to predict what other future substances might be stored in UST systems that would fit the requirement in the statute. Thus, the Agency has created language that allows the agency to evaluate if the stored substances are potentially harmful substances, as their potential to pollute the waters of the state is determined. To determine if products are identified as meeting this definition, the MPCA would refer to industry standards, or the recommendations of the manufacturer of the product, if they exist.

The design of UST systems for other potentially harmful substances may not be identical to those of regulated substances. To further reduce burdens for these lower-risk substances, the owners and operators of tanks with other potentially harmful substances are not required to report or identify to the Agency any other potentially harmful substance being stored. Owners and operators are only required to notify the Agency when storing a regulated substance or a petroleum product. The requirements for other potentially harmful substances will be applied as individual incidences are discovered.

The Agency only wants to be able to apply the requirements for other potentially harmful substances to those UST's where there is risk to human health and the environment when storing a substance in a container that is not compatible. Primarily this requirement would prohibit corrosive substances from being stored in steel USTs. USTs manufactured of fiberglass-reinforced plastic or lined with an epoxy or similar coating are resistant to corrosion and in most cases are suitable for storage of other potentially harmful substances. It is reasonable to establish this definition to clarify that the level of regulation for other potentially harmful substances is less than the level of regulation for a regulated substance.

Subp. 32b. Out of service. USTs are subject to the closure requirements of part 7150.0400 based upon their status. A UST's status as an out-of-service UST is established when an owner or operator stops introducing or dispensing product from the UST. The Agency is proposing this definition as a means of establishing a date when the UST is no longer in service. The date a UST's status becomes out of service determines when the requirements of part 7150.0400 apply.

The argument can be made, that a UST is being used and is in service, because it is storing a regulated substance, regardless of whether a regulated substance has recently been introduced or removed from the UST. The problem with the argument is that, theoretically, a UST could remain in the ground indefinitely as long as there is product in the UST. That situation would increase the likelihood of corrosion or other degradation, leading to release of the regulated substance. The proposed definition for "out of service" will establish that a UST is not in service when product is not being introduced or

removed from the UST. This definition is modeled on the definition for an out of service UST used by the New Jersey Department of Environmental Quality.

Subp. 34. Owner. The Agency is proposing minor changes in wording and formatting to make the requirements more easily understood. The MPCA does not believe the changes will affect who meets the definition of an owner. In addition, the term “hazardous material” has been replaced with the word “hazardous substance” for the same reasons described under subpart 22 above.

Subp. 34a. Permanent closure. The Agency uses the term “permanent closure” throughout Minn. R. ch. 7150, but the MPCA has never defined the term. The proposed definition establishes that there are two methods of permanently closing a UST – closing it in place or removing it from the ground. Procedures for permanent closure are in part 7150.0410.

Subp. 36. Petroleum. The Agency is proposing a change to item D of the definition to conform to federal language. Changes to the federal language no longer define petroleum as being derived from crude oil. The federal changes address new technologies that are developing petroleum products comprised from materials other than crude oil, such as bio-fuels blends or hydrocarbons developed from natural gas.

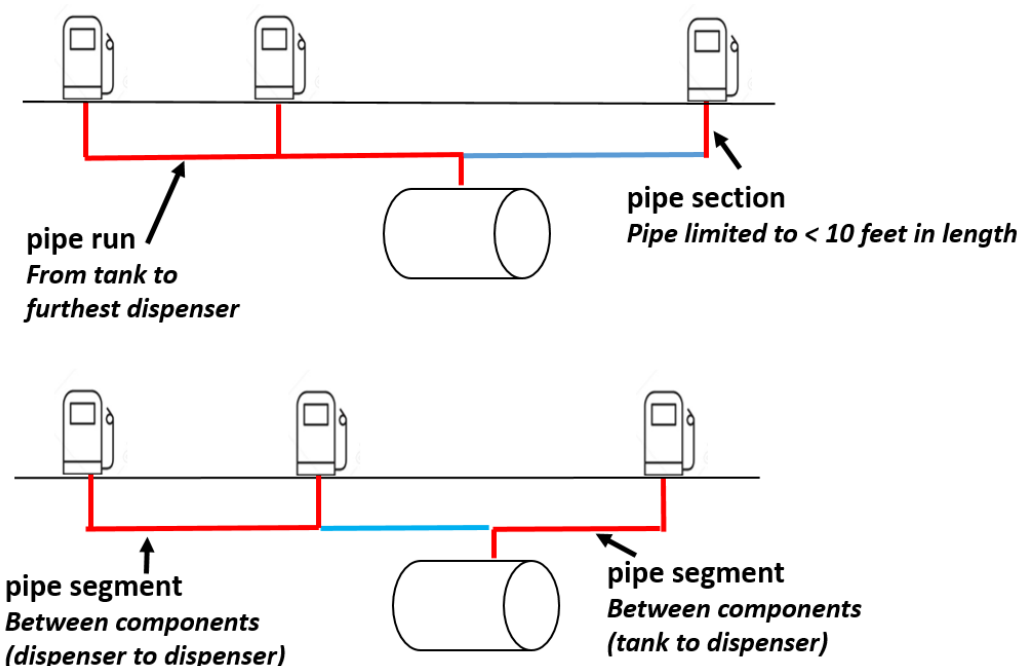
Subp. 37. Petroleum UST system. The Agency proposes to revise this definition to reflect changes in subp. 22 for “hazardous substance,” and subp. 51 for “UST system.” Justification for these changes is addressed in the relevant subparts.

Subp. 38. Pipe or piping. The Agency is proposing to further define piping to include the requirement that piping be made of nonferrous materials to conform to the definition in 40 CFR pt. 280. The MPCA is also updating a reference to include UST system to reflect changes in subp. 51. See the subp. 51 justification.

Subp. 38a. Piping system. The Agency is proposing a new definition for piping system. Most people think of a piping system as just the pipes in the ground. They fail to realize that the piping system also includes all the appurtenances that are used to convey product or prevent a release of product. The piping system definition outlines what those appurtenances are, and what the parts of a piping system are.

The definition establishes three parts to a piping system – piping runs, piping segments, and piping sections. The piping system definition also defines what the parts of a piping system are. Defining what those parts are is important in determining what the requirements are for testing, repairing, and replacing pipe systems or their appurtenances.

Figure 2: Parts of a piping system.



Subp. 39a. Product. The Agency is proposing a definition for “product” to avoid confusion with the definition of a “regulated substance.” The word is used in existing rule without definition. The proposed definition clarifies that the term product has the same meaning as a regulated substance. The word product is used interchangeably with the term regulated substance throughout Minn. R. ch. 7150.

Subp. 40. Regulated substance. The Agency is amending the definition to conform to changes at the federal level under 40 CFR pt. 280. The federal definition references the statute, section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980. The proposed rule references the implementing regulation of that statute, which provides greater detail on the substances meeting the statutory definition.

Subp. 41. Release. Under existing part 7150.0300, subp. 41, a release is limited to occurring from an UST. However, releases can occur from any part of an UST system and not just from the UST. Therefore, the Agency is proposing to broaden the definition by establishing that a release may occur from any part of an UST system.

Subp. 42. Release detection or leak detection. The Agency is adding the term “leak detection” to the existing definition. The distinction between a release and leak is discussed under subp. 25c. Chapter 7150 and 40 CFR pt. 280 use the terms leak detection and release detection interchangeably. For all practical purposes, they have the same meaning.

Subp. 43. Repair. The existing definition for “repair” includes many references to “replacement.” The terms have different meanings and the Agency is proposing amendments to guide the reader. To clarify the definition for repair, the references to replacement have been removed and inserted into the subp. 43a definition. The definition for repair has also been reformatted into listed items for easier reading. Items A to C cover the same topics as the original definition for a UST system repair – piping repair, dispenser repair, and tank repair. Portions of the definition referencing repairs have been reworded, but the requirements remain essentially unchanged.

The Agency observes that there is often confusion regarding piping repair and how it differs from piping replacement. Thus, the Agency believes it is important clarify in rule what piping repair encompasses.

- Piping repair involves replacing less than 10 feet of piping. Sometimes, the repair occurs directly below a dispenser, e.g., on a flex connector. To facilitate certain repairs, it may be necessary to remove the dispenser to gain access to the piping being repaired. If the same dispenser that was removed is being reinstalled after the piping repair is completed, the work is considered a repair.
- Occasionally, it is necessary to cut an undamaged pipe section to allow a dispenser sump installation to reroute a pipe section for a sump installation, or some similar activity. Though technically not a repair because the pipe section was not damaged to begin with, replacing less than 10 feet of piping to facilitate a sump installation, or similar activity, is treated as a repair in the rules.
- Piping repair involves replacing less than 10 feet of piping. Piping located above grade level is not calculated into the amount of replaced piping. All piping replaced below-grade level is calculated into the amount of piping replaced and would include the length of the bottom half of shear valves, flex connectors, as well as pipe segments, if they are replaced.

If a dispenser is taken off and work is performed on the dispenser or on piping on or above the shear valve, and the same dispenser is put back into place it is a repair. Additionally, if a new or used dispenser is installed and no work is performed below the shear then that dispenser replacement is considered a “repair”, even though a different dispenser is being installed.

The definition for repair also defines what a UST repair is. It is reasonable to include this definition to ensure that regulated parties and Agency regulators have a common meaning of this term.

Subp. 43a. Replace or replacement. The Agency is proposing to simplify the definition of parts that are replaced by naming them “components of a UST system.” The components of a UST system include the UST and its appurtenances. Revisions also include moving the references to repair into the subp. 43 definition.

The Agency is also revising portions of the definition referencing replacement, but the requirements remain essentially unchanged. The Agency believes it is important to clarify in rule what replacement encompasses.

- Installing more than 10 feet of piping of a piping run is a piping replacement. This is an accumulation of the total of replacement piping in a piping run. For example, if a 6-foot segment of piping is replaced in one part of a pipe run and 5 feet of piping is replaced in the same piping run in another area, the total replaced pipe length is 11 feet. This is a piping replacement.
- Installing a new or used dispenser is considered a replacement, if the piping below the shear valve is disturbed. A dispenser replacement involving piping repair, replacement or modification below the shear valve, is different than a piping repair involving the removal of a dispenser. In a dispenser replacement, the piping is disturbed to facilitate the installation of a different dispenser. In piping repair, the piping and dispenser is disturbed to facilitate a piping repair. All piping replaced below-grade level is calculated into the amount of piping replaced and would include the length of the bottom half of shear valves, flex connectors, as well as pipe segments, if they are replaced.
- The proposed Agency revisions clarify what constitutes dispenser replacement. Proposed item C includes a reference to the submersible pump replacement requirements of part 7150.0205, subp. 6.

Subp. 43b. Retrofit tank. The MPCA is proposing a new definition for a retrofit tank. A retrofit tank is a new UST that is built inside of an existing UST using fiber-reinforced materials. The retrofit UST must meet the requirements of corrosion protection and secondary containment of new USTs. Unlike single-walled linings that were used for corrosion protection upgrades, retrofit tanks are required to have secondary containment. Retrofit tanks are a relatively new technology and the definition differentiates a retrofit tank, which is secondarily contained, from a UST that was lined for corrosion protection.

Subp. 44a. Secondary containment tank or secondary containment piping. The existing definition in part 7150.0030, subp. 44a is being deleted for relocation purposes. A revised definition is now located under subp. 44c.

Subp. 44b. Sacrificial-anode system. Chapter 7150 makes reference to sacrificial anodes and contains specific requirements for sacrificial anodes systems. The Agency is establishing this definition to ensure that regulated parties and state regulators have a common understanding of what a sacrificial-anode system is and its use for corrosion protection.

Subp. 44c. Secondary containment or secondarily contained. See subp. 44a discussion. The Agency is proposing revisions to the definition to conform to changes to 40 CFR § 280.12.

Subp. 45a. Spill bucket. The Agency is proposing a new definition for a spill bucket. A spill bucket is a containment system used to catch spills during UST fills. Spill buckets are also known as spill catchment containers and spill containers. The most widely accepted industry name for the containment system is spill bucket. The Agency is proposing this definition to ensure that regulated parties and state regulators have a common understanding of the term.

Subp. 46a. Sump. The Agency is proposing a new definition to remove confusion about what a sump is. A sump is a below-grade area that allows access to UST system components. Sumps can be contained or uncontained. Sumps can be made of fiberglass, plastic or other similar materials. Sumps can also be a dirt hole.

It is important to note that sumps installed after December 22, 2007, must be contained or liquid tight to facilitate interstitial monitoring for leaks. Sumps made of fiberglass, plastic, or similar materials installed prior to December 22, 2007, may either be contained or uncontained depending on whether they are used for interstitial monitoring.

Subp. 49. Tank system. The Agency is proposing to repeal this definition because it is not specific to USTs. The reference to tank can mean aboveground or underground and this ambiguous definition is being repealed. The term applicable to USTs is "UST system" in subpart 51.

Subp. 49a. Unattended card-lock facility. The MPCA is proposing to move the definition for an "unattended card-lock facility" from part 7150.0211 to part 7150.0030, subp. 49a. The move places the definition with other applicable definitions of Minn. R. ch. 7150 for easier reference. The Agency is proposing to add the phrase "during business hours" to the definition to distinguish businesses that do not have operators during night time hours from those businesses that do not have operators on site during most operating hours. Sites that do not have operators during nighttime hours are considered attended as long as the hours of operation fit the definition of business hours in subpart 4a.

Subp. 50. Underground area. The Agency believes that changes to the definition would clarify the definition of a tank in an underground storage area. The change would treat tanks in confined areas that cannot be physically inspected as USTs under Minn. R. ch. 7150. Tanks in underground areas are exempt from UST regulations because it is possible to treat them like an aboveground storage tank in terms of inspections. An aboveground storage tank has less stringent release detection requirements because it is possible to inspect the exterior surface of the tank or the secondary containment area for leaks.

There are some tanks in underground storage areas that are in very tight locations, often with covers over them, that cannot be inspected for leaks. In some instances, the only access to the tank is a small hole in the cover that allows only the top of the tank to be viewed. It is not possible to view the bottom of the tank or the secondary containment area through these small holes because the tank top blocks the view to the areas that need to be inspected. This definition would ensure that tanks in tight areas, and that cannot be inspected, are regulated as USTs. This clarification ensures that all tanks have the same degree of inspection and accordingly the same degree of protection against releases.

Subp 50a. Underground storage tank or UST. Existing part 7150.0030, subp. 51 combines two separate ideas into one definition. A UST is only a tank located in the ground. An “underground storage tank system” includes the UST and the appurtenances connected to them. Some requirements in chapter 7150 apply to just USTs and other requirements apply to UST systems. The Agency believes that two separate definitions are appropriate to facilitate specifying which requirements apply. The proposed definition is based on the definition in 40 CFR § 280.12. The MPCA proposes to include in the definition an UST containing other potentially harmful substances as discussed in part 7150.0030, subp. 32a.

Subp. 51. Underground storage-tank system or UST system. The Agency is proposing to remove references to an UST from this definition to bring the language in line with the changes discussed in subp. 50a. Similarly, the MPCA is also expanding the definition of an UST system to include USTs containing other potentially harmful substances as discussed in part 7150.0030, subp. 32a.

The definition of a UST system in 40 CFR § 280.12 states that a tank system consists of a tank, connected piping, containment, if any, and appurtenances (ancillary equipment). This definition limits the tank system to only those components that hold or contain a regulated product or other potentially harmful substance.

The MPCA believes that a UST system should include any component used to fill, contain, or dispense a regulated substance or other potentially harmful substance from a UST in a safe manner that protects human health and the environment. UST system components can include:

- Corrosion protection systems used to contain the regulated substance by preventing corrosion leaks.
- Drop tubes that prevent excessive turbulence within the UST while product is being placed in the UST.
- Vent pipes that prevent damage to the UST due to over-pressurization or an excessive vacuum.
- Release detection equipment used to detect a leak from the UST, piping and appurtenances, and dispensers.
- Internal linings used for corrosion control and compatibility purposes.

Using the narrower federal definition would require repeatedly listing additional components that would be outside the definition.

Subp. 51a. Unusual operating condition. Federal regulations require owners and operators to report unusual operating conditions under 40 CFR § 280.50. Although no definition for unusual operating condition is established, examples of unusual operating conditions are provided. The Agency believes it is reasonable to establish a definition rather than rely on examples, because the examples may not be comprehensive. The definition will ensure owners and operators understand what an unusual operating condition is and how to address it. The Agency’s proposed definition is based on the examples provided in the federal rule.

3. Part 7150.0090 NOTIFICATION AND CERTIFICATION.

This part establishes the requirements upon which owners and operator must submit notifications and certifications to the Agency.

Subp. 1. Prenotification.

Item A. The MPCA proposes to remove the requirement to prenotify the Commissioner when dispenser installations or replacements occur. Dispensers are above-grade and they can be inspected at a later date to ensure work adheres to industry standards and practices; therefore, prenotification is not required.

The current prenotification requirements limit prenotification to tanks, piping, or dispensers. The Agency proposes to expand this requirement to include any UST system components that cannot be inspected once installed, replaced, or repaired.

Examples of UST system components that will be installed, repaired, or replaced that typically would or would not require a 10-day prenotification is listed below in Table 2: Prenotification requirements for installed, repaired, or replaced UST system components.. UST system components listed under column A require a 10-day prenotification to allow the Agency the option to inspect the work prior to burial to minimize the potential for releases due to substandard work. UST system components listed under column B do not require a 10-day prenotification because the work remains visible and can be easily inspected after completion. The MPCA is not proposing to include this table in rule because site-specific circumstances could allow more or fewer components to be visually inspected after installation. The ability to visually inspect after installation is the determining factor for the notification requirement.

Table 2: Prenotification requirements for installed, repaired, or replaced UST system components.

A. 10-day prenotification <u>required</u> for UST system components that are installed, repaired, or replaced:	B. 10-day prenotification <u>not</u> required for UST system components that are installed, repaired, or replaced:
<ul style="list-style-type: none">• Tanks• Tank linings or retrofit systems• Piping• Piping and appurtenances that will be buried after the work is completed• Secondary containment sumps• Secondary containment sump boots, where the piping and containment sumps are removed or altered to perform the work• Vent lines where work is performed below the surface of the ground• Other UST system work that cannot be inspected when completed	<ul style="list-style-type: none">• Pipe and appurtenances which are visible after the work is completed and not in contact with soil• Secondary containment sump boots where piping outside the containment sump and the containment sump remains in place and is not removed or altered to perform the work• Automatic shutoff overfill protection devices• Drop tubes• Overfill alarms• Automatic tank gauge (ATG) probes• Vapor recovery equipment• Vent lines where work is performed above the surface of the ground• UST system work that can be fully inspected when completed

Additionally, prenotification is required for corrosion protection system installation, replacement, or repair work done below grade that cannot be visibly inspected after work completion. For example,

installing additional anodes on tanks or piping requires a prenotification. Minor corrosion protection repairs, such as isolation of piping from a dispenser, would not require prenotification because the Agency can inspect the repair work after completion.

Item D. Prenotification is already required for lining inspections on USTs that have been lined for corrosion protection upgrade purposes under existing part 7150.0215, subp. 4, and the information is simply being cross referenced for the ease of the reader. This is a new requirement for USTs that are lined, or partially lined, for reasons other than corrosion protection upgrade purposes under part 7150.0205, subp. 1(B)(4).

Owners and operators may voluntarily choose to internally line, or partially line, USTs to prevent corrosion inside tanks. A lining that has failed or degraded may actually cause accelerated corrosion within an UST; therefore, the Agency wants to monitor these lining failures. Requiring prenotification of a lining inspection allows the MPCA an opportunity to be present during these lining inspections. Other than submitting the prenotification, this requirement places no additional burden on the owner or operator. The MPCA is proposing no further requirements for voluntarily lined, or partially lined, USTs beyond a prenotification requirement.

Subp. 2. Notification of installation, replacement, or change in status. The Agency is proposing minor revisions to clarify the language. The basic requirements remain the same. Retrofit tanks are new USTs; therefore, they are already included in notification requirements. However, since retrofit tanks are built inside of existing USTs, confusion may arise as to whether there needs to be a notification submitted because the original UST, upon which the retrofit tank is built, has already met the notification requirements. The Agency views a retrofit tank as a new or replacement UST and requires notification to be submitted. Therefore, it is reasonable for the Agency to clarify that retrofit tanks are subject to this requirement.

Subp. 3. Certification by owners and operators. For the same reasons described above, the Agency is proposing to add retrofit tanks to this requirement. The Agency views a retrofit tank as both a new and replacement UST; therefore, the Agency requires certification that the retrofit tank is in compliance with applicable with items A to D.

Item D. The Agency is proposing that owners and operators must certify compliance with the corrosion protection requirements of part 7150.0215 when installing new or replacement tank systems or components. The MPCA is proposing this requirement to conform to 40 CFR § 280.22.

Subp. 4. Certification by installers. For the same reasons described under subps. 2 and 3, the Agency is proposing to require an installer certify that the work they performed related to a retrofit installation complies with items A to D of this subpart.

Subp. 7. Notification of tank purchase. The MPCA is proposing to replace all references to "Commissioner" with a reference to the "agency" where the action involves submittal of a document that does not require approval. References to submittals that require a decision remain as references to the Commissioner that require a decision. It is reasonable to make this distinction to deal with submittals in a more efficient manner. Additionally, the Agency is changing the reference from "shall" to "must" to be consistent with other requirements in part 7150.0090 that use "must."

Subp. 8. Notification of compatibility. The Agency is proposing to add the requirement that owners and operators must notify the Agency of their intent to store a regulated substance containing more than 10 percent ethanol, more than 20 percent biodiesel, or any other regulated substance identified by the Commissioner. Demonstration of compatibility with these fuels is also required. The proposed revisions

conform to 40 CFR § 280.32. Higher concentrations of ethanol or biodiesel can affect the compatibility with certain materials.

Subp. 9. Notification of other regulated substances. Future fuels being developed may not be compatible with existing UST systems and would need to be treated as a regulated substance. Therefore, the Agency is proposing to add a requirement that the Commissioner notify owners and operators of these “other regulated substances” to ensure owners and operators know that a notification of compatibility under part 7150.0090, subpart 8, is required. The Agency believes that Commissioner notification for “other regulated substances” will be few. The proposed rule establishes that notification of other regulated substances must be provided by the Commissioner to owners and operators in written or electronic form. Thus the MPCA has the flexibility to provide 1) notice to an individual, or 2) notice to a relevant group of individuals.

DESIGN AND CONSTRUCTION

4. Part 7150.0100 PERFORMANCE STANDARDS FOR UST SYSTEMS.

This part establishes the requirements for preventing releases due to structural failure, corrosion, or spills and overfills from UST systems.

Subp. 7. Installation. Under existing part 7105.0030, subp. 3, owners and operators must ensure that persons performing installations of USTs and components are certified according to Minn. R. ch. 7105. The existing requirement is based on Minn. Stat. § 116.491. The Agency is proposing to add a reference to the already applicable requirement to clarify to owners and operators unfamiliar with certification requirements that they must comply with the requirement. The Agency is also revising the applicable codes of practice to conform to 40 CFR § 280.20(d) for new UST systems.

Subp. 9. Compatibility. The Agency is proposing to revise this subpart to address federal changes under 40 CFR § 280.32 for items A, B (portions), and C; and to reorganize the information for ease of reference.

Item A. The Agency is proposing to add requirements related to compatibility with the substance stored. Where degradation is possible under the listed stored regulated substance scenarios, the applicability of items B, C, and D is referenced. The proposed language is equivalent to 40 CFR § 280.32; meaning, all UST system components must be compatible with the substance being stored. The reference in the federal rule to lined tanks is not included because, as discussed above at part 7150.0030, subp. 43b, the MPCA treats lined tanks as equivalent to new tanks. Items B, C, and D are discussed below.

Item B. Owners may decide to retrofit a UST to meet compatibility requirements. The MPCA is proposing to add the requirement that USTs retrofitted after the effective date of this rule meet compatibility requirements. Retrofitted USTs must be constructed with secondary containment according to part 7150.0205, subp. 1. Lining a tank to meet compatibility requirements constitutes a retrofit tank. Retrofit tank systems are a newer tank construction technology where a tank is constructed inside of another tank. A retrofit tank is not considered a field-constructed tank. Retrofit tank systems are typically installed because the existing tank is no longer suitable to store the regulated product or complete removal and replacement is not feasible due to site constraints. Since a retrofit tank system is an alternative to a new tank system, it is reasonable to require retrofit tank systems to meet new tank construction standards, including secondary containment, in accordance with part 7150.0205, subp. 1. The secondary containment must be created within the retrofit tank itself. The shell of the old UST must not be used as part of the secondary containment because the shell may be compromised due to age, compatibility or corrosion. The marketplace currently offers retrofit tank systems that are UL approved and will meet part 7150.0205, subp 1.

Item C. The MPCA is proposing to add the requirement that owners and operators must demonstrate compatibility of the UST systems with the product being stored. The proposed requirement for demonstrating compatibility are equivalent with 40 CFR § 280.32.

Items D and E. The Agency is proposing to add requirements to allow owners and operators to use an alternate method of assuring that a UST system is not degrading provided the Commissioner determines that the alternative method is no less protective to human health and the environment. It is reasonable for the Agency to establish criteria and a process for owners and operators to obtain approval for demonstrating compatibility as an alternative to part 7150.0100, subp. 9(D).

Subp. 10. Repairs allowed. The Agency is proposing to repeal this subpart to relocate the information to proposed part 7150.0250, subp. 2. It is reasonable to move the content of part 7150.0100, subp. 10 because the topic of repairs fits best in proposed part 7150.0250, which includes restoration and corrective actions.

Subp. 11. Spill and overfill release prevention. The Agency is proposing revisions to subpart 11(A) to conform to the federal codes of practice under 40 CFR § 280.30(a).

Subp. 12. Sump and basin maintenance. The Agency is repealing subpart 12 because language regarding construction standards and maintenance will be located in parts 7150.0205 and 7150.0216. The proposed change is reasonable because it removes language that would become duplicative.

Subp. 12a. Containment sumps and spill buckets. The Agency is proposing to add a new subpart 12a to outline the performance standard for containment sumps and spill buckets. The requirement, to be maintained in good repair and liquid tight, applies to all spill buckets. However, only those containment sumps that are required for interstitial monitoring are required to be maintained in good repair and liquid tight. Prior to containment sumps being required in December 2007, some owners and operators installed containment sumps. To require these owners and operators to maintain their containment sumps in good repair and liquid tight, when they were not originally required to be, would be forcing undue requirements on them. Only those owners and operators that use their containment sumps for interstitial monitoring purposes, regardless of when installed, are required to maintain their sumps in good working order.

Subp. 13. Shear valves. The Agency is proposing to add a requirement that shear valves be installed according to manufacturer recommendations. This is not a new requirement because owners and operators are currently required to install all UST components according to the manufacturer requirements and industry standards. The Agency is proposing to add the requirement that shear valves installed after the effective date of the rule be of a double-poppet design. With a single-poppet shear valve, in the event of an accident that breaks the shear valve, the valve will shut and stop the flow of product from the UST piping beneath the shear valve. However, the product in the dispenser, approximately 3 gallons, will drain out and pose a fire risk. On a double-poppet shear valve there is an additional valve that stops the product from draining out of the dispenser if the shear valve breaks. The cost difference between a single-poppet valve and a double-poppet valve is minimal. It is reasonable to add this requirement because of the added safety benefit if a dispenser is hit and a shear valve is activated.

Subp. 14. Drop tubes. The Agency is proposing a minor revision to clarify who is responsible for assuring compliance with this subpart. Clarifying that owners and operators understand that they are responsible for ensuring compliance with the requirements of this subpart is reasonable because they are responsible for the system as a whole. The basic requirement remains unchanged.

5. Part 7150.0205 DESIGN AND CONSTRUCTION.

This part establishes the requirements for corrosion protection and secondary containment.

Subp. 1. Tanks. The Agency is proposing to reorganize existing requirements into three items for better organization. The revisions group topics into the areas of permanent closure for noncompliance, corrosion protection, and applicable secondary containment requirements. The MPCA is moving the requirements for inspections of lined tanks of part 7150.0205, subp. 1(E) to the new proposed part 7150.0215, subp. 4 (internally lined tank requirements). With the exception of item C, the requirements remain unchanged.

Item A. The Agency is proposing revisions to existing language to adhere to the standards of the MORS. The requirements have simply been relocated and remain essentially unchanged.

Item B. The requirements have simply been relocated and remain essentially unchanged.

Item C. As previously discussed, the Agency has moved existing requirements into this item. Additionally, the Agency has added the requirement that retrofit tanks must be secondarily contained. Retrofit tanks are discussed under part 7150.0030, subp. 43b. Retrofit tank systems are typically installed because the existing tank is no longer suitable to store the regulated product and complete removal and replacement is not feasible due to site constraints. Because a retrofit tank system is an alternative to installing a new tank system, it is reasonable to require retrofit tank systems to meet new tank construction standards according to this item. All new tanks must be secondarily contained according to 40 CFR § 280.20. Currently, on a new tank, or if a tank is replaced, all piping appurtenant to the tank must be secondarily contained. It is reasonable to add a requirement that if a tank is retrofitted, all piping must meet the secondary requirements of a new tank system.

Subp. 2. Codes of practice for tanks. The Agency is proposing revisions to this subpart to conform to changes to the codes of practice in accordance with 40 CFR § 280.20(a). The standards are also incorporated by reference under part 7150.0500.

Subp. 3. Piping. The Agency is proposing to reorganize existing requirements into three items for increased readability. The revisions group topics into the areas of permanent closure for noncompliance, corrosion protection, and applicable secondary containment requirements. The Agency is proposing to delete part 7150.0205 subp. 3(D)(1)(c). There are no known applications of double-walled steel piping with a fiberglass-reinforced plastic jacket being used. Such piping would be impractical to install and not cost effective. Should owners and operators choose to install double-walled steel piping that has a fiberglass-reinforced plastic jacket, it would be allowed under other provisions of this subpart.

Item A. The Agency believes it is reasonable to require any piping systems that do not meet the requirements of this subpart to be permanently closed. Currently, only tanks that do not comply with requirements are required to permanently close. The Agency is proposing to add the same closure requirements to piping systems. The same type of release that the tank requirements prevent could occur in piping, so it poses a similar risk. As a result, the Agency determined that piping needs an equivalent secondary containment requirement. This is a new requirement.

Item B. As previously discussed, the Agency has moved existing requirements into this item. However, the Agency has added a new requirement under subitem (1). The Agency is proposing to change the requirement that piping be made of fiberglass-reinforced plastic, to allowing piping to be made of a noncorrodible material under subitem (1). A noncorrodible materials includes fiberglass-reinforced plastic, Kevlar®- reinforced plastic, Nylon 12 and any other plastic materials developed that are noncorrodible. This is reasonable because the previous need for requiring fiberglass-reinforced plastic

was to have a noncorrodible material. More materials are available now and could be developed in the future, so citing the principle rather than a list allows flexibility while meeting the need.

Item C. The Agency is also proposing revisions to relocated language. The Agency is proposing to add requirements that piping that is required to be secondarily contained and have interstitial monitoring (installed after December 22, 2007) also have contained submersible pump sumps and dispenser sumps. Manufacturer specifications and industry standards also require sumps at each end of the piping segment in order to conduct interstitial monitoring properly. The Agency believes the proposed changes are reasonable to clarify original intent of the rule and meet current industry standards.

There are two exceptions to the requirement to have secondary containment at each end of secondarily contained piping. The first exception is where the end of a secondarily contained pipe enters a building, which in itself, provides containment until any releases from that pipe can be detected and remedied. This exception does not increase the risk of a release to the environment. The second exception is where the secondarily contained pipe joins with a single-walled pipe segment using a pipe joint method approved by the secondarily contained pipe manufacturer for direct burial in the ground, and for interstitial monitoring. This exception is necessary to allow the transition from secondarily-contained piping to single-walled piping where such a change is permissible.

Subp. 4. Codes of practice for piping. The Agency is proposing revisions to this subpart to conform to changes to the codes of practice in accordance with 40 CFR § 280.20(b). The standards are also incorporated by reference under part 7150.0500.

Subp. 5. Spill-prevention and overfill-prevention equipment. For consistency with 40 CFR § 280.20(c)(2) and industry standards for petroleum equipment the Agency is proposing additional restrictions on the use of flow-restricting overfill devices. Additionally, the Agency is proposing minor changes to adhere to the standards of the MORS.

Item A. The Agency is proposing that flow-restricting overfill devices installed in vent lines, commonly referred to as ball floats, must not be used in conjunction with automatic flow shutoff overfill devices. To comply with this requirement, owners and operators sometimes choose to disable the ball floats without completely removing them. This practice creates a dangerous condition where a tank may experience pressurization while being filled. As a result, when the delivery hose is disconnected from the tank fill riser, fuel is forced under pressure up the riser pipe, potentially resulting in the delivery person being sprayed with fuel and fuel being released to the environment. Thus, it is reasonable to establish a requirement that when an automatic shutoff device is used, the ball float must be completely removed to ensure the safety of the delivery person and to prevent releases.

Additionally, the Agency is proposing new requirements outlining the conditions upon which flow-restricting overfill devices in vent lines may or may not be used. The requirements are needed to clarify current industry standards referenced in the requirements of 40 CFR § 280.20. The petroleum equipment industry has identified problems with ball float overfill protection devices used in conjunction with automatic shutoff devices (see discussion above), suction systems with air eliminators, and coaxial stage 1 vapor recovery. The industry standards are now specified under this item. The requirement that flow restricting devices in vent lines can no longer be installed conforms to 40 CFR § 280.20(c).

Item C. To conform to 40 CFR § 280.35(b)(1), the Agency is proposing to add the requirement that at the time of installation or replacement, spill prevention equipment must be tested tight and overfill devices must be tested for proper operation.

Subp. 6. Submersible pump sumps.

Item A. The Agency is proposing revisions that clarify who is responsible for assuring compliance with this subpart. Additionally, the MPCA is proposing revisions related to the replacement of a submersible pump, including a replacement pump head. The Agency believes it is reasonable to make these changes to remove confusion regarding what a pump is. Some people view the submersible pump as the whole pump assembly, which includes the pump head, pump, pump motor, and check valve. Under this scenario, if a pump assembly is replaced, with the pump assembly removed from the UST riser or where the pump assembly is disconnected from existing piping, secondary containment is required. Other people view the submersible pump as just the pump located at the bottom of the tank. With this interpretation of a submersible pump, replacing a pump at the bottom of a tank would require secondary containment to be installed around and beneath the pump. Due to normal wear and tear on pumps, this would place an undue burden on owners and operators that do not have secondary containment already installed. Thus, for the purpose of these rules, submersible pumps will only mean the pump assembly. For example, a repair to a submersible pump where the pump/motor/check valve assembly is removed from the bottom of the tank and a pump is replaced, would not be considered a submersible pump replacement. If a submersible pump assembly is disconnected from a UST riser or existing piping, secondary containment must be installed around a submersible pump.

Subitem (1). The Agency is replacing the word “release” with the word “leak” to reflect the clarification to part 7150.0030, subp. 25c and the existing definition under subp. 41. Without the proposed revision, the requirement would not make sense because secondary containment is designed to contain a leak; a leak is not release – a release is a leak that has entered the environment. Additionally, the Agency is also proposing to replace the words “connectors, fittings, and valves beneath the pump head” with “appurtenance or leak-detection device” to better describe relevant equipment. The Agency also found the phrase “beneath the pump head” as too restrictive in requiring leaks from beneath the pump head be contained. The MPCA believes owners and operators may misinterpret “beneath the pump head” to mean that leaks from components above the pump are not required to be contained. Leaks may also occur from the pressure regulator or from the line leak detector. Both of these devices are located above the pump head. In addition, the Agency proposes to add appurtenances in the requirement to include all components of the tank system within the containment area. For example, because leaks can occur from the vent tubes on line leak detectors, containment sumps must also be designed to contain releases from leak detectors.

Subitem (2). The MPCA is proposing to remove the requirement that secondary containment have liquid-tight covers. Liquid-tight covers are nearly impossible to maintain because of the need to constantly open the sumps for inspection; dirt, water, and ice can damage and weaken the seals. The Agency believes that retaining this requirements places undue hardship on owners and operators and is being removed as a requirement. This change does not have a major effect on the likelihood of a leak or release.

Subitems (3) and (4). The Agency is proposing minor formatting revisions.

Subitem (5). The Agency is proposing to add a requirement that new and replacement secondary containment systems be tested liquid tight prior to placing the UST system into service. The proposed language conforms to 40 CFR § 280.35. Secondary containment must be liquid tight and tested and inspected while the penetration points are exposed with no soil covering them according industry standards.

Item B. To be consistent with industry standards, the MPCA is proposing to add a requirement that submersible pumps, installed on or before December 22, 2007, be accessible for inspections and not be

covered with soil, water, or other obstacles that prevent visual inspections. Submersible pumps installed before that date were often installed in dirt sumps with no secondary containment around them. Over time, soil tends to build up around the pump head. This soil prevents the inspection of the entire pump head for leaks. Sumps installed before December 22, 2007, were not required to be liquid tight. Thus, water can leak into the sump and interfere with the proper inspection of the sump. Therefore, it is important that the submersible pump be accessible for inspection by removing water, dirt and debris from the sump. This requirement does not apply to submersible pumps installed after December 22, 2007, because those submersible pumps must have liquid-tight secondary containment. The December 22, 2007, date is an existing effective date for secondary containment that is simply being carried forward in this requirement.

Item C. The Agency is proposing revisions to this subpart to conform to changes to the codes of practice in accordance with industry standards. The standards are also incorporated by reference under part 7150.0500.

Subp. 7. Dispenser sumps. The Agency is proposing to amend this subpart to clarify the contents. The MPCA is separating existing item A into proposed items A and B; thus, existing item B is renumbered to the new item C. Dispenser sumps must meet the requirements of proposed items A, B, and C.

Item A. This is an amended item and now addresses the conditions under which an owner and operator must install secondary containment under a dispenser. It is reasonable to make this revision to clarify applicable requirements. The MPCA is also proposing to remove the reference to December 22, 2007, because these requirements apply to all USTs regardless of when they were installed.

Subitem (1). This is an existing requirement that has been moved from item A, and conforms to 40 CFR §280.20(f).

Subitem (2). The Agency is proposing to require that secondary containment sumps be installed under a dispenser when new or replacement piping is connected to that dispenser. According to 40 CFR §280.20(f), secondary containment sumps are required when new piping is installed as part of a new UST installation. The proposed rule requirement is more stringent than 40 CFR §280.20(f); however, the Agency believes that the requirement to install secondary containment under dispensers should not be contingent upon a new UST being installed, only. The Agency considers it reasonable to require secondary containment under a dispenser when every new or replacement piping is connected to a dispenser. When a dispenser is disconnected for installation of new piping, it presents an opportunity to install secondary containment. This requirement will reduce the risk of release from older dispensers that are connected to partially-updated UST systems.

Subitem (3). This is an existing requirement that has been moved from item A. The requirement remains the same.

Subitem (4). During dispenser upgrades, some owners and operators have replaced the dispenser islands without installing underdispenser containment. Under the existing rule, underdispenser containment is not required in situations where replacement of only islands, or any portion of the base material beneath the dispenser, is performed; however, this is only true in situations where no work has occurred in the existing piping beneath the shear valve.

Subitem (4) is a new non-federal requirement that the Agency is proposing because demolition and construction activity around piping poses a risk of a release that could harm human health and the environment. For example, when the base material beneath the dispenser is removed, the piping and associated connectors to the dispensers become unsupported and may be damaged by shifting, twisting, turning, or other motion that occurs during construction activity. Releases are possible when

personnel unknowingly damage exposed piping and associated connectors during construction activity and equipment movement. Thus, releases have occurred as a result of damage to flex connectors, fittings, and piping when the base material beneath the dispenser has been removed and/or replaced. Generally, UST system leaks in the form of releases, drips, or weeps can occur at dispensers of all ages for various reasons. The Agency has determined that there is greater chance of a release occurring shortly after completion of the work; unfortunately, the releases are often not discovered until later – sometimes days or weeks later. If underdispenser containment had been installed, the release could have been contained until the release was discovered and remedied.

When an owner or operator plans replacement work for a dispenser island or base material, it is reasonable to use the opportunity to perform containment work related to the dispenser. During work activities is an opportune time for owners and operators to install secondary containment because the concrete is removed and part of the excavation work is already completed. Therefore, the Agency believes underdispenser containment is reasonable and installation should be required as the opportunity presents itself.

The MPCA strongly believes that anytime underdispenser containment can be installed, it will protect human health and the environment. The proposed item will only be required for future construction activities involving the concrete or base material around the dispensers being removed and/or replaced. The MPCA does not expect this requirement will affect many owners and operators because other work is usually proposed that would already require underdispenser containment sumps.

Item B. This is an existing item that has been amended to outline the design and installation requirements for a dispenser sump. The Agency is proposing to move the requirements of existing item A into proposed item B, subitems (1) to (4). The requirements have not changed.

Subitem (5). This is a new subitem. The Agency is proposing to add the requirement to conduct integrity testing of dispenser sumps to conform to industry standards.

Item C. This is a new item. The Agency is proposing to add the requirement that dispenser sumps installed after the effective date of this rule must allow for visual inspection of the containment sump and be large enough to provide access to components within the sump for inspection and servicing. The proposed requirement conforms to 40 CFR § 280.20(f)(2). This is somewhat more restrictive because the Agency requires both physical access and visual access in this part and requires monitoring in part 7150.0216, subp. 2 to prevent releases to the environment. Federal rules allow visual inspection and access or monitoring for leaks.

Item D. This is a new item. The Agency is proposing to add this item to clarify that owners and operators conducting dispenser repairs are not required to install secondary containment under the dispenser. It is reasonable to add this requirement to remove confusion that already exists about dispenser replacement and dispenser repair. See part 7150.0030, subps. 43 and 43a.

Item E. This is a new item. The requirements for this item have been moved from previously existing item B to this item. The Agency is proposing revisions to conform to 40 CFR pt. 280.

Subp. 8. Emergency stops. This item is new. The proposed amendment references already-existing emergency stop requirements from the existing Minnesota State Fire Code (MSFC). The proposed language simply consolidates already-existing tank system requirements for owners and operators. It is reasonable to add this requirement to ensure that owners and operators understand that the Agency can readily inspect emergency stops during routine compliance inspections. This requirement establishes no additional burden on owners and operators because compliance is already required

under the MSFC. Additionally, functioning and compliant emergency stops protect human health and the environment.

6. Part 7150.0211 CLASS A, B, AND C OPERATOR REQUIREMENTS.

The Agency is proposing to delete the Class A, B, and C operator requirements in existing part 7150.0211 and relocate them to proposed part 7150.0445. This action allows the Agency to locate operator requirements, reporting requirements, and recordkeeping requirements in one location for better overall rule organization and better user access.

OPERATION AND MAINTENANCE

7. Part 7150.0215 OPERATING AND MAINTAINING CORROSION PROTECTION.

The Agency is proposing to revise existing part 7150.0215 to include requirements for operating and maintaining corrosion protection. Since this revised part now addresses all aspects of corrosion protection, not just cathodic protection, this part is now more accurately retitled.

Subp. 1. Operating and maintaining cathodic protection. The Agency is proposing to revise this subpart to clarify who is responsible for operating and maintaining cathodic-protection systems and providing a more descriptive subpart title. The MPCA is also including minor language revisions in the proposed amendments, but the requirements remain unchanged.

Subp. 2. Sacrificial-anode systems. The Agency is proposing to reword this paragraph to clarify that owners and operators are responsible testing their corrosion protection systems for proper operation.

Item A. The Agency is proposing to reorganize existing requirements into two items for increased readability. The requirements have not changed.

Item B. The MPCA is proposing to update the codes of practice used to determine if the corrosion protection is adequate to conform to 40 CFR § 280.31(b)(2).

Item C. The Agency is proposing to remove the provision that allowed persons who are not cathodic-protection testers to determine the adequacy of the corrosion protection system on a UST using an external test station, commonly called a P4 test station. It is reasonable to propose this change because the EPA requires corrosion-protection testing to be conducted by a cathodic-protection tester according to 40 CFR § 280.31(b).

In addition to the federally required items A and B, the Agency is proposing in this item to add requirements for repairing sacrificial-anode systems for corrosion protection. The proposed requirements are consistent with industry standards that are outlined in the [*MPCA Guidelines for the Evaluation of Underground Storage Tank Cathodic Protection Systems \(MN CP Manual\)*](#) that has been used throughout Minnesota since 2012. See SONAR Attachment 7. With this rulemaking, the Agency is codifying the accepted industry standards. In addition, the Agency is also proposing to accept the design of a corrosion protection expert in lieu of the applicable industry standard. Thus, the proposed amendments allow repairs to be conducted based on industry standards or based on the design of a corrosion expert. To ensure that repairs are adequate and that damage does not occur to the tank system, repairs must be conducted by certified tank contractors, corrosion protection testers and corrosion protection experts. These requirements are reasonable to protect human health and the environment because they ensure equipment repairs occur in accordance with all applicable standards.

Subp. 3. Impressed current systems. The Agency is proposing to reword this paragraph to clarify that owners and operator are responsible for testing their corrosion-protection systems for proper operation.

Items A and B. The Agency is proposing minor language changes to items A and B to adhere to the standards of the MORS.

Item C. The MPCA is proposing to update the codes of practice used to determine if the corrosion protection is adequate to conform to 40 CFR § 280.31(b)(2).

Item D. The Agency is establishing the conditions that apply to repairs to impressed current systems in this item.

Subitem (1). Subitem (1) requires that repairs be conducted within 60 days of a failing test result. This requirement comes from the MN CP Manual that is modeled on the State of Mississippi's requirements, considered the standard among regulators in the United States. The 60-day deadline has been recommended since 2012 and is being codified with this rulemaking.

Subitems (2) and (3). Currently, part 7150.0100, subp. 10, item E requires repairs on impressed-current systems to be conducted by a corrosion expert. This requirement exists because each impressed-current system is unique to the facility and requires specialized training to design an impressed-current system for the appropriate application. Due to a shortage of corrosion experts, owners and operators are often unable to have repairs conducted in a timely manner that reduces the risk of corrosion damage to the UST system. Therefore, the Agency is proposing to allow certified contractors and cathodic-protection testers to conduct impressed-current system repairs, provided the repairs are in accordance with the design requirements developed by a corrosion expert. The Agency believes that the proposed changes in no way increase the risk of environmental damage due to corrosion because the work is conducted in accordance with the repair design of a corrosion expert and the actual repair work is within the skill levels of corrosion-protection testers and certified tank contractors.

Subp. 4. Internally lined tanks. The MPCA is proposing to move the requirements of existing part 7150.0205, subp. 1, item E for the internal inspection of tanks lined for corrosion protection to proposed part 7150.0215, subp. 4 for consolidation and reorganization purposes. References to "Commissioner" have been changed to "agency" for the reasons discussed under part 7150.0030, subp. 2. The requirements for conducting the inspection of internally lined tanks remain unchanged.

Subp. 5. Codes of practice. The Agency is proposing revisions to subpart 5 to conform to 40 CFR pt. 280.

8. Part 7150.0216 OPERATING, MAINTAINING, AND TESTING UST SYSTEMS.

The Agency is proposing to add this part to consolidate all of the requirements for operating, maintaining, and testing UST systems into one part of the rule for better organization.

Subp. 1. General.

Item A. Under item A, the MPCA establishes that owners and operators must maintain, test, operate, and inspect tanks, piping, and associated components of a UST system in accordance with the requirements of the manufacturer (subitem (1)), codes of practice developed by a nationally recognized association (subitem (2)), or according to the requirements of the Agency (subitem (3)). The requirements conform to 40 CFR § 280.31, 40 CFR § 280.35, 40 CFR § 280.36, and 40 CFR § 280.40. The proposed requirements will ensure that the components function properly to prevent a release.

Subitem (3). Under proposed subitem (3), the Commissioner may determine equivalent alternative methods for operating, maintaining, and testing UST system. The requirement conforms to 40 CFR § 280.35(a)(1)(ii) and 40 CFR § 280.36(a)(2), which allow an implementing agency to:

1. Approve test methods for those incidences where no manufacturer requirements or codes of practice exist;

2. Approve test methods for those incidences where manufacturer requirements or codes of practices do not apply because of unique circumstances; or
3. Approve test methods that consolidate the requirements of several manufacturer requirements or several codes of practices.

Item B. The MPCA is proposing a new requirement that wastes generated during testing must be disposed of according to state and local regulations. This requirement applies primarily to liquids used to hydrostatic test spill buckets and containment sumps that may be contaminated during testing. It can also apply to any other wastes that may be generated during testing, such as waste petroleum product released while conducting line tightness testing. This requirement is reasonable because an owner or operator must properly dispose of wastes to reduce the risk of a regulated product being released to the environment. Additionally, an inspector must have the ability to review records regarding testing and disposal to determine compliance. In the absence of this requirement, the releases prevented by other parts of this chapter could be offset by the release of contaminated wastes. Improper disposal of such wastes may be prohibited by other law.

Subp. 2. Periodic operation and maintenance inspections. The Agency is proposing this new subpart to consolidate maintenance and inspection requirements currently located in parts 7150.0100 subp. 12 and 7150.0300 subp. 7.

Item A. The MPCA is proposing to move the requirements for sump and spill-bucket inspection and maintenance requirements from part 7150.0300, subp. 7, to this item.

Subitem (1). The requirement to visually check sumps (dispenser, transition, and submersible pump) and spill buckets for leaks is from part 7150.0300, subp. 7 and is now located in this subitem. The Agency is also proposing a new requirement that owners and operators must look for equipment defects that could result in releases to the environment. Examples of equipment defects include holes in spill buckets, torn boots at pipe and electrical sump penetration points and sump sensors not positioned properly.

Subitem (2). When owners and operators discover a spill, leak, or drip from any part of a UST system, they must immediately determine the source and take action to stop the spill, leak, or drip. The Agency is moving and clarifying this existing requirement from current part 7150.0300, subp. 7, to this subitem to consolidate inspection and maintenance requirements to 7150.0216, subp. 2, for organizational purposes. The requirements to remove liquid and debris remains the same.

Subitem (3). Spill buckets and sumps used for interstitial monitoring should not contain any debris or liquids. Liquids and debris may mask equipment defects, or cause UST system components to degrade; therefore, any liquids or debris observed during an inspection must be removed from the sump or spill bucket. This requirement, originally located in part 7150.0300, subp. 7, was moved to this subitem to consolidate inspection requirements. The requirements of this subitem conform to 40 CFR § 280.36(a)(1)(i)(A).

Subitem (4). In sumps that are not required to be contained, it is common to find the sump partially filled with water, soil, and debris. To ensure that the piping, pump head, and UST appurtenances can be properly inspected, the water, soil, and debris must be removed before inspection. Once an inspection has been completed, the sump would not be required to be maintained free of liquid because the sump is not a contained sump used for interstitial monitoring. However, soil and debris should be kept out of the sump to prevent excess corrosion on UST system components in the sump. The MPCA believes it is reasonable to require liquid and debris to be removed so proper inspections can be conducted to identify any defects or leaks in the UST system in a timely manner.

Subitem (5). The requirement to ensure that release detection equipment is operating with no alarms or unusual operating conditions and that release detection records are reviewed conform to 40 CFR § 280.36(a)(1)(i)(B).

Subitem (6). The requirement to ensure that riser caps are tight and that there are no obstructions in the fill pipe that would interfere with the operation of an overfill device conform to 40 CFR § 280.36(a)(1)(i)(A).

Subitem (7). Currently, only tanks using inventory control or an automatic tank gauging (ATG) for tank leak detection are required to monitor for water on the tank bottom. The proposed requirements conform to 40 CFR § 280.43.

The MPCA is proposing to expand the requirement to monitor for water on tank bottoms to include all regulated USTs because water entering a UST is usually an indicator of a problem with the UST system. The most common problems that allow the ingress of water are a leak in the UST, corrosion holes in the UST riser, or damage to the piping for the UST vent. The Agency believes proposed subitem (7) results in little burden to owners and operators because most forms of tank leak detection allow for easy monitoring for water on the UST bottom. In most cases, sites with ATG allow owners and operators to view a printout to determine water readings. If there is no ATG on site, then owners and operators must already have a gauging stick on hand to monitor fuel levels. For the cost of a tube of water finding paste, about \$7, owners and operators have the capability of checking water for years. Owners and operators simply need to place paste on a gauging stick and drop it in the tank. If the paste changes color, water is present in the tank. Thus, the cost is not considered burdensome. Additionally, water causes bio-fuels to degrade and that causes excessive corrosion on the interior of steel tanks and causes the resins in older fiberglass tanks to breakdown. Damage to the interior of steel and fiberglass is not repairable and would result in a significant investment loss for owners and operators; thus, monitoring the water levels on the bottoms of USTs is critical in preventing releases and does not unduly burden owners and operators because it is easily and inexpensively done.

Item B. The Agency is proposing to move this requirement from part 7150.0300, subp. 7 to this item to consolidate maintenance and inspection requirements. The proposed requirement conforms to 40 CFR § 280.36(a)(1)(i)(A).

Item C. The Agency is proposing that UST systems that receive infrequent deliveries (greater than 30 days apart) are exempt from the spill-bucket inspection requirements under proposed item A. However, the spill bucket must be inspected before and immediately after each delivery. The owner and operator must also keep records that verify the infrequency of deliveries. The proposed requirement conforms to 40 CFR § 280.36(a)(1)(i).

Item D. Currently, under part 7150.0450 subp. 3, item D, subitem (2), unit (I), owners and operators must keep records of monthly sump and basin monitoring. Changes to EPA tank regulations now require owners and operators to keep records of each area checked, whether the area was acceptable or needed corrective actions, and what corrective actions were taken. The Agency is proposing additional monitoring records to conform to 40 CFR § 280.36 (b).

Subp. 3. Release-detection equipment.

Item A. Testing leak detection equipment to ensure that it is working properly is important to prevent releases from USTs, piping, and any secondary containment areas of a UST system. Currently, only sensors used for interstitial monitoring, according to part 7150.0300, subp. 7, and automatic line-leak detectors, according to part 7150.0330, subp. 5, must be function tested annually. The Agency is

proposing to expand the requirement to test leak-detection equipment in this subpart to include function testing of any UST system leak detection equipment to conform to 40 CFR § 280.40(a)(3).

Item B. The MPCA is establishing two requirements under proposed item B. The first requirement establishes that owners and operator must conduct annual inspections and testing of any handheld electronic or mechanical leak detection devices to ensure they are serviceable and operating properly. This requirements conforms to 40 CFR § 280.40(a)(3).

The second requirement establishes that annual testing of UST system release-detection equipment must be conducted by agency-approved testers to ensure that the release-detection equipment is inspected and tested properly. Persons that are agency-approved testers must comply with part 7150.0216, subp. 6; thus, they would have the necessary experience and training to allow them to identify release-detection equipment deficiencies. Most owners and operators are not qualified to conduct this testing because they are not familiar with release-detection equipment and have not been trained to conduct the testing. It is reasonable to establish item B to ensure proper operation and testing of equipment.

Item C. This item identifies UST system components that must be tested to ensure that UST release-detection equipment is operating and maintained properly and conforms to 40 CFR § 280.40(a)(3). Additionally, the Agency is proposing to include spill buckets and containment sumps in the list of equipment that must be inspected annually under proposed subitem (5). Containment sumps provide a means of leak detection when they are used to visually look for leaks, thus they are pieces of equipment that should be inspected annually for deficiencies, just like any other leak detection device. Spill buckets contain releases that occur during deliveries to the UST. Since spill buckets contain releases, they must be inspected also.

Subitem (5) conforms to 40 CFR § 280.36(a)(1)(ii), which requires annual inspections of containment sumps for damage, and 40 CFR § 280.35 (a)(2), which requires inspections according to industry standards; the proposed standards include inspections of spill buckets.

Subp. 4. Spill buckets and containment sumps. This subpart outlines the monitoring and testing requirements that owners and operators must apply to spill buckets and containment sumps. Under items A and B, the Agency is proposing requirements that conform to 40 CFR § 280.35(a)(1).

Item C. The MPCA is requiring that the items described in subp. 4 be tested by an agency-approved tester to ensure that spill bucket, containment sumps, and interstitial monitors are tested properly per industry standards and in a manner similar to the conditions in which the sensors are intended to function. It is reasonable to establish this requirement for the same reasons outlined in subp. 3(B) above.

Subp. 5. Overfill-prevention equipment. According to 40 CFR § 280.35 (a)(2), overfill devices must be tested every three years to ensure the equipment is operating properly. Testing shall ensure that the overfill device will activate at the correct level as specified in 40 CFR § 280.20(c). The MPCA is proposing to require owners and operators to use an agency-approved tester to conduct this testing because in most cases there is a certain amount of disassembly of the tank system to conduct the testing. Using an agency-approved tester ensures that the integrity of the tank system is not compromised as a result of the testing.

Subp. 6. Agency-approved testers.

Currently, Minn. R. ch. 7105 requires any person who installs, repairs, or takes an UST permanently out of service to obtain a certificate of competency from the Agency. This requirement ensures that only qualified MPCA-certified tank contractors and supervisors are allowed to perform work on UST systems.

The Agency is proposing a similar requirement for persons who conduct UST system testing and certain inspections now required under 40 CFR pt. 280, to be agency-approved testers.

UST system tests and inspections are often similar to tests and inspections conducted by an MPCA-certified tank contractor during tank system installations or repairs. It is often necessary to partially disassemble the UST system in order to perform the tests or inspections, or to connect industry specialized test equipment to the UST. Once the tests or inspections of the UST system are completed, the UST system must be reassembled and placed back into service. All work must follow industry standards in a manner that ensures that the tank system is not leaking or damaged. Because the activities necessary to conduct UST system tests and inspections are so similar to those activities performed by MPCA-certified tank contractors and supervisors, the Agency believes it is reasonable to require persons conducting UST system tests and inspections to be agency-approved testers. Other states that are known to have agency-approved testers include Iowa, West Virginia, Maine, Arkansas, and Montana.

Item A. Under item A, the Agency is proposing to outline the requirements necessary to be an agency-approved tester. The requirements are discussed below.

Subitem (1). This subitem establishes that an application must be submitted to the Commissioner every four years and that it must include information needed to identify and contact the applicant and documentation demonstrating compliance with subitems (2) and (3). It is reasonable to establish minimum qualifications on the content of an application to determine whether the applicant meets the necessary criteria. The four year renewal frequency was chosen because it matches the renewal period currently required for MPCA-certified tank supervisors who install, repair or remove UST systems. The intent is to overlap the renewal periods to streamline applicable requirements for MPCA-certified tank contractors and supervisors. The MPCA believes this is reasonable also, because it can align the timing of both certification application submissions.

Subitem (2). This subitem establishes that certifications by the manufacturer of components of a UST system being tested, and certification by the manufacturers of the equipment used for testing, must be included with the application, if such certifications are offered by the respective manufacturers. It is critical for the MPCA to have accurate information about the applicant to determine whether the applicant is qualified to perform any necessary work on UST systems. Gaining information that the applicant, or approved-agency tester, has taken relevant manufacturer training and achieved the certification demonstrates relevant qualifications to conduct work on specific UST system components or test equipment.

Subitem (3). This subitem establishes the criteria for who may be an agency-approved tester. Due to the numerous tests, types of tests, and inspections being required under 40 CFR pt. 280, the Agency is proposing that tests and inspections conducted on UST systems should be conducted by a person certified under Minn. R. ch. 7105, or an independent testing laboratory not affiliated with the owner or operator that specialize in tank system testing.

Originally, the Agency considered proposing that tests and inspections conducted on UST systems be conducted by third-party testers not affiliated with the owner or operator. Third-party testers would have been defined as a certified Minnesota UST contractor under Minn. R. ch. 7105, or an independent testing laboratory specializing in tank system testing. This option would not have allowed owners and operators to conduct testing or inspections on their own facilities under any circumstances. When the original concept was presented to the advisory committee, representatives of some of the regulated parties expressed a desire to have an alternative to hiring a third-party tester. The major concern about requiring a third-party tester is that some regulated parties are currently performing their own testing

and establishing third-party tester requirements would prohibit this activity. Given this feedback, the Agency determined it was necessary to assess the testing and inspections being conducted.

Currently, the MPCA is aware of only two current cases where owners or operators conduct their own testing and inspections. They represent a very small percentage of all the regulated USTs in Minnesota. Most owners and operators do not want to test their own UST systems due to the potential liabilities and the level of training required to conduct the testing and inspections.

The MPCA evaluated information relevant to the two known instances of UST self-testing to determine the existing level of training, and the adequacy of the testing and inspections currently conducted by owners and operators in Minnesota.

Table 3: Case A and B comparison

Descriptions	Case A	Case B
Who they are	UST owner certified as a MN UST contractor under Minn. R. ch. 7105	UST owner/operator employees not certified as a MN UST contractor under Minn. R. ch. 7105
Training	Testing per industry standards; Manufacturer certifications	Testing not to industry standards; No manufacturer certifications
Agency review of testing records	Satisfactory – data and reports are accurate and thorough	Unsatisfactory – inaccurate and incomplete
Agency review of owner/operator inspection results	No significant issues raised during the past three years.	Employees, on numerous occasions, have been conducting UST system tests and subsequent repairs as a result of failed test results, or unusual operating conditions. In the last three years, the owner has had at least four releases at multiple sites because of repairs employees conducted. However, a total of 26 releases have been reported across all of the sites under this one owner since the Agency began tracking releases.

In reviewing the above information, it is clear that the MN UST certified contractor has received the training necessary to conduct testing on their equipment, maintain relevant records, and conduct relevant repairs so as to avoid/mitigate releases. Therefore, the Agency does not have an issue with an owner certified as a UST contractor conducting his own testing and inspections under Case A. The individual is clearly adequately trained, maintains good records, and does not pose a significant threat to human health and the environment. However, the Agency has concerns about the number of releases at multiple sites and the total number of releases across the different sites under the same ownership under Case B. The Agency believes the activities described under this example pose a threat to human health and the environment and that untrained persons are not qualified to conduct testing and repairs. As a result of this review of the two known owner/operators that currently conduct their own testing, the Agency has determined that training and certification are important factors to consider with testing and inspecting USTs.

That said, other members of the advisory committee were still in favor of requiring testers to be third-party testers, as originally proposed, due to the level of skill and training needed to perform testing and due to liability concerns.

The Agency also considered the following in establishing criteria for who may conduct testing and inspections on UST systems, agency-approved tester criteria.

- MPCA-certified tank contractors and supervisors have the experience and training necessary to conduct the testing and inspections according to manufacturer requirements and industry standards. Additionally, many of the tests required under 40 CFR pt. 280 are already performed in the normal course of installing and repairing UST systems.
- Third-party testing firms fall into two basic categories – large testing laboratories that conduct work in many states, and small independent testing laboratories that work in localized areas within Minnesota. The large testing companies are highly skilled, well organized, and familiar with testing procedures as a result of their need to comply with various states' requirements. These firms are reputable, and the Agency has little cause for concern with the testing and inspections they perform in Minnesota. Smaller testing firms located in Minnesota pose a potential concern to the Agency because some of them have a history of conducting repairs and other UST service work, even though they are not certified by the MPCA to do so. After further consideration, the Agency believes concerns about these smaller firms can be addressed by instituting a tester approval process with a means of revoking approvals for specific reasons, such as unprofessional conduct. See item B for further discussion.
- The Agency could consider allowing owners, operators, and their employees to be trained and certified by the manufacturers of their onsite UST components. The Agency currently requires MPCA-certified contractors to attend contractor classes and to pass qualification examinations. A similar requirement could be extended towards owners, operators and their employees. However, practical field experience and necessary tools to perform work are not easily addressed. The Agency recognizes that the primary reason owners and operators would want to test their own UST systems is the cost savings in performing the work themselves. However, the MPCA must weigh those cost savings along with the factors listed below.
 - MPCA staff experience with questionable records during field inspections is a concern.
 - MPCA staff experience with the tampering of UST components to circumvent their intended functions due to lack of practical field experience on equipment and testing procedures is a concern.
 - Owners, operators and their employees have a greater potential for improper testing and inspections, due to inexperience with the UST equipment and testing procedures. There would be a higher risk of harm to human health and the environment if such persons were allowed to conduct their own testing. An agency-approved tester would be performing hundreds of tests a year versus an owner or operator performing only 3 or 4 a year.
 - Owners and operators that conduct their own testing may take it upon themselves to conduct repairs to alleviate their perception of a problem. Proper repair procedures and specialized tools are sometimes needed to conduct appropriate repairs; improper repairs may unintentionally create a larger problem because improper testing may mask a defect that could result in a leak. Proper procedures and reporting must take place if a release occurs so remedial action can be taken, as needed. Owners and operators may not have the resources to respond to releases, or knowledge in the reporting and cleanup of such releases. Repairs performed on a UST system must be conducted by a Minnesota-certified UST contractor because they have both the training and experience in the appropriate reporting, repairs, and clean up procedures. If repairs are conducted by owners and operators that are not a certified UST contractor, they are in violation of existing Minn. R. ch. 7150.

- A member of the advisory committee suggested the Agency should penalize owners and operators that are currently conducting testing and repairs in violation of Minn. R. ch. 7150. In implementing the UST program, the Agency seeks to protect human health and the environment. While a punitive approach would be within the Agency's authority, the MPCA believes a better approach is to revise the existing rules to address the key underlying issues – a lack of necessary training to conduct appropriate testing; a lack of certification that would enable owners and operators to understand the specifics of testing, inspecting, and repairing their onsite equipment; and a lack of proper documentation. The Agency believes that dedicating resources to revising the existing rule will do more to benefit human health and the environment than simply dedicating resources to penalizing untrained owners and operators.
- Any entity that tests UST systems has the potential of causing a release as a result of conducting testing or of causing a leak to go undetected due to testing errors. The tests being conducted often involve compromising the UST integrity (piping and interstitial areas), removing UST components (ATG probes and overfill devices), or attaching test equipment (line tightness testers, line-leak detector function testers, and vacuum pumps). In many instances, specialized tools and equipment may be needed to prepare and conduct the required testing. In the case of hydrotesting spill buckets and containment sumps, the water can cause damage to electrical systems, and infiltrate into the piping interstice. If this occurs, the pipe may burst due to freezing. Water introduced to spill buckets can infiltrate into the tank and contaminate the regulated substance through leaks in the drain valve or fill adaptor. Overall, there is a great potential of damage to the UST system, or a release to the environment, if the testing is not conducted properly. Though not infallible, agency-approved testers bring relevant training and a wealth of experience to each UST system test and inspection; thus, agency-approved testers provide more protection to human health and environment than an untrained and uncertified owner or operator.

In most cases, agency-approved testers will be conducting the same type of testing that is being performed by MPCA-certified tank contractors during a UST installation or repair. MPCA-certified contractors must maintain "*...comprehensive general liability insurance, surety bonds, or liquid company assets that, in combination, represent a value of not less than five times the value of the largest storage tank project contract performed by the contractor during the previous two years...*" under part 7105.0050, subp. 1(B). Because testing and inspections being conducted by agency-approved testers pose the same risks to human health and the environment as those being conducted by MPCA-certified contractors, the Agency believes it is reasonable to require agency-approved testers to carry insurance similar to what is required by MPCA-certified contractors.

The Agency believes it is reasonable to require insurance coverage that is equivalent to that carried by certified contractors because of the potential for: (1) releases from a UST system while conducting testing, inspections or repair work, and (2) catastrophic damage due to the flammable or hazardous nature of the contents in a UST system. However, it is not possible to directly apply the criteria for determining the level of insurance coverage for MPCA-certified contractors established under part 7105.0050, subp. 1(B) to an agency-approved tester because the criteria is based on the value of an installation; agency-approved testers do not perform installations. The Agency is proposing an insurance level of no less than \$1,000,000 of comprehensive liability insurance with pollution liability coverage for agency-approved testers. This level of insurance is being proposed because it is the minimum level of comprehensive liability insurance with pollution liability coverage that is available to testing firms who conduct testing and inspection work. The insurance level is also the same level of insurance required for UST testers that are licensed in Iowa.

MPCA-certified tank contractors and most testing firms currently have comprehensive liability insurance with pollution liability coverage greater than the \$1,000,000 minimum coverage being proposed by the Agency. Therefore, there is no additional insurance costs passed on to owners and operators. In the rare instance where testing firms do not have insurance, the MPCA estimates that the cost of the insurance passed on to owners and operators would amount to less than \$17.50 per year for approximately 5% of the currently existing 4,100 UST sites in Minnesota.

After careful consideration, the Agency believes that it is reasonable and necessary for agency-approved testers to be either an employee of a certified tank contractor under Minn. R. ch. 7105, or employees of an independent testing laboratory that is not affiliated with the owner or operator of the UST system being tested, and to carry \$1,000,000 of comprehensive liability insurance with pollution liability coverage.

Item B. Under proposed item B, the Agency outlines the criteria the Commissioner will apply with (1) the denial of an application; or (2) the suspension, restriction, or revocation of an agency-approved tester. The requirements are discussed below. As a comparison to other states, Iowa, Massachusetts, Maine, and West Virginia have similar provisions for denying, suspending, restricting or revoking certifications.

Subitem (1). This subitem establishes that the Commissioner has authority to deny, suspend, restrict, or revoke an application for an agency-approved tester, if the applicant or agency-approved tester fails to meet the application requirements under proposed item A. The reasonableness of item A has been established above and the MPCA believes that it is reasonable to deny an application if the applicant or agency-approved tester cannot demonstrate compliance with the applicable criteria.

Subitem (2). This subitem establishes that the Commissioner has authority to deny, suspend, restrict, or revoke an application for an agency-approved tester, if the applicant or agency-approved tester fails to comply with the inspection and testing requirements of Minn. R. ch. 7105. The reasonableness of the proposed inspection and testing requirements has been discussed in the reasonableness discussion of part 7150.0216. The Agency believes noncompliance with the inspection and testing requirements calls into question the validity of information gathered from those activities for the inspected or tested UST system. Even if the tester has the required training, failure to implement the training when conducting tests allows a potential release that could harm human health or the environment. Therefore, it is reasonable to use noncompliance with this item as criteria for denying, suspending, restricting, or revoking an application for an agency-approved tester.

Subitem (3). This item establishes that the Commissioner has authority to deny, suspend, restrict, or revoke an application for an agency-approved tester, if the applicant or agency-approved tester submitted false or misleading information to obtain or renew agency approval under part 7150.0216 or certification under Minn. R. ch. 7105. It is reasonable for the Agency to establish this requirement to ensure that the MPCA does not approve testers who do not actually meet the criteria. It also makes clear to applicants and approved/certified individuals that the submittal of false or misleading information is unacceptable and will result in negative consequences to the party submitting false or misleading information.

Subitem (4). This item establishes that the Commissioner has authority to deny, suspend, restrict, or revoke an application for an agency-approved tester, if the applicant or agency-approved tester engaged in fraudulent activities related to records, test results, or repairs while performing duties as an agency-approved tester. It is reasonable for the Agency to establish this requirement to avoid risk of fraud and inaccurate test results in the future. It also ensures applicants and agency-approved testers understand that their engagement in fraudulent activities related to records, test results, or repairs while

performing duties as an agency-approved tester is unacceptable and will result in negative consequences to the party engaging in those actions.

Item C. The MPCA is proposing that the Commissioner provide a written notice to any agency-approved tester who has had their application rejected or have had their approval to act as an agency-approved tester revoked or suspended; the notice must list effective date, basis, facts supporting the action, and the specific steps necessary to become an agency-approved tester. Item C also outlines the provisions for an agency-approved tester, or applicant to request a hearing to contest the Commissioner's decision to deny, revoke or suspend an approval. These requirements are reasonable because they provide the agency-approved tester with due process. Requiring written notice for denials, suspensions and revoking certifications is similar to requirements of other states, such as Iowa, Massachusetts, and Arkansas. A few states, such as West Virginia, Maine, and Montana do not have provisions for providing written notice or due process. The process is also similar to that of tank contractor certifications at part 7105.0110 and licenses or certifications for septic system professionals in Minn. R. 7083.2020 subp. 4.

The Agency is proposing to establish a period of one calendar year as the time period upon which a person may not apply to be an agency-certified tester, if a person has had their application denied, or their certification revoked or suspended. The Agency does not intend to apply this time period restriction to those incidences where an application is submitted with inadequate or missing information. The decision to establish a one-year period is specific to Minnesota. Most states do not have a limit to how long of period to deny, suspend or revoke a tester's certification. Maine sets a time period of 90 days to one year. Iowa suspends certification until the tester has completed special training and any terms of a suspension order. The Agency has chosen a one-year period because it is a period of time that the Agency believes is necessary for a tester to be recertified by manufacturers to conduct testing on UST components. It is also a time period that would allow a tester who is an MPCA-certified tank contractor, to be able to complete the MPCA tank contractor class that is offered on an annual basis. It provides a deterrent against improper conduct in the duties as an agency-approved tester. This is similar to the one-year restriction for septic system professionals in part 7083.2020, subpart 4(C).

9. Part 7150.0250 RESTORATION, CORRECTIVE ACTIONS, AND REQUIRED PERMANENT CLOSURE.

This part addresses the corrective and restorative actions that must be conducted by owners and operators to return a UST system back to proper operating condition. If the UST system cannot be returned to a proper operating condition, this part also outlines the conditions upon which a UST system is required to be permanently closed.

Subp. 1. Unusual operating conditions.

Item A. The MPCA is proposing to add a requirement to immediately correct unusual operating conditions in a UST system or take the UST system out of service to prevent further leaks. The proposed requirement conforms to 40 CFR § 280.50(b), which identifies unusual operating conditions such as erratic behavior of dispensing equipment, sudden loss of product, and water ingress. Also, see the discussion for unusual operating conditions under the part 7150.0030, subp. 51a discussion.

Subitem (1). Under subitem (1), the MPCA is proposing that the UST system does not need to be placed into temporary closure if an unusual operating condition can be resolved. An example of an unusual operating condition being resolved might be when the ATG detects a sudden loss of product. Usually a report of sudden loss occurs when fuel is removed from the UST while a tank leak test is being performed. If the owner or operator can verify that the reported loss can be attributed to fuel being

removed and not a leak, the UST does not need to be placed into temporary closure and the unusual operating condition has been resolved.

Subitem (2). Under subitem (2), the MPCA is proposing that the UST system does not have to be taken out of service if the defective or leaking component can be isolated in a manner that will prevent product from leaking. An example of isolating a leaking component might be when a fire or shear valve is closed to stop a leak from a defective dispenser meter. In this case, the UST system would remain in service and non-isolated dispensers could continue to dispense product.

Subitem (3). Under subitem (3), the MPCA is proposing that the UST system does not have to be placed into temporary closure if the defective component is repaired or replaced by a certified tank contractor. Until repairs are completed, owners and operators of a UST system must meet the requirements of either subitem (2) or subpart. 1(A).

Item B. Under item B, the MPCA is proposing that the owner or operator must report unresolved unusual operating conditions that may have resulted in a leak or that indicate a release according to part 7150.0345, subp. 2. The onus is on the owner or operator to verify that a release has not occurred. If the owner or operator cannot resolve the unusual operating condition or is unable to determine that a release has not occurred, then the unusual operating condition must be treated as a release and reported to the Minnesota duty officer.

Subp. 2. Repairs.

The Agency is proposing to move the requirements from existing part 7150.0100, subp. 10 to this subpart for better organization and improved clarity. Except as described below, the requirements have not changed.

Item A. The Agency is proposing to add the requirement that owners and operators must keep their UST systems in “good working condition” at all times. Good working condition means that tank system components are maintained according to the manufacturer’s requirements, if applicable, or that the components are maintained such that they function as intended by the manufacturer or according to industry standards. To comply with 40 CFR § 280.33, the MPCA is also adding the requirement that repairs must ensure that releases due to structural failure or corrosion do not occur for as long as UST system is storing a regulated substance.

Item B, subitem (3). The MPCA is proposing this requirement to conform to 40 CFR § 280.33, that requires secondary-containment areas used for interstitial monitoring on tanks, piping and containment sumps must be tightness tested.

Item C. The Agency is proposing to add references to three codes of practice that address repaired tanks, piping, secondary containment areas used for interstitial monitoring, and containment sumps. The codes of practices, which are identified in the repair section of 40 CFR § 280.33(d) are referenced here to place emphasis on the requirement for tightness testing after repairs, and the references are also listed in the summary of all methods located in part 7150.0500. Item C conforms to federal requirements.

Item E. To conform with 40 CFR § 280.33(f), the MPCA is proposing that repaired spill and overfill prevention equipment must be tested or inspected to ensure that it is functioning properly within 30 days of a repair. Spill and overfill equipment are important components in preventing releases from tank systems; therefore, testing or inspecting the spill and overfill equipment after a repair ensures that the chance of a release due to an improper repair or defective components is reduced.

Item F. The MPCA is proposing to add a requirement that UST system components used for leak detection must be function tested or inspected after being repaired to ensure proper function. It is reasonable to include this requirement because a malfunctioning leak-detection device with no alarms or warning may give owners and operators a false sense of security and allow a leak to go undetected.

Item G. The MPCA is proposing this requirement to conform to the codes of practice required under 40 CFR pt. 280. The codes of practice must be used to ensure repairs to UST systems are properly conducted.

Subp. 3. Replacement.

Item A. The MPCA is proposing to add the requirement that UST system components that do not meet the performance standards of part 7150.0100 must be repaired or replaced. The Agency intends that owners and operators must take immediate action to replace deficient components. Immediate action means that owners and operators must initiate and actively continue the process of having the component replaced as soon as practicable. Depending on the situation, this could mean within minutes, or within a day or two. Once the process to replace a component has started, delays in replacing a component may occur due to issues beyond the certified tank contractor's control – e.g., scheduling problems, or lead times in ordering components. These types of delays are often beyond the owner or operator's control, and the owner or operator should not be accountable for these delays, provided the owner or operator has taken the actions necessary to initiate the repair process, and is actively working towards getting the component replaced as soon as practicable. It is important to note that delays in replacing components that are leaking are not acceptable because immediate action must be taken to minimize and abate releases according to Minn. Stat. § 115.061.

Subitem (1). The MPCA is adding the requirement that UST system components with excessive corrosion must be replaced if the components do not function as intended by the manufacturer or may cause a release. This requirement is an extension to the current requirement to replace piping with excessive corrosion, and is expanded to include any tank system component that has excessive corrosion. This subitem does not apply to components with superficial surface corrosion. This subitem is intended for those components with corrosion that is excessive, heavy or that causes pitting-type corrosion that may cause the components to not function as the manufacturer intended, or that may cause a leak.

Subitem (2). The MPCA is adding the requirement that any component that has been identified as being deficient per the requirements of chapter 7150 must be replaced. The current UST rules require deficient UST components to be identified by inspections or testing; however, only corroded piping must be replaced. Thus, it is necessary to establish this requirement to ensure that all deficient components that are not corroded piping, are also replaced.

Item B. The MPCA is adding the requirement that the entire piping run must be replaced with secondarily contained piping, if any of the listed conditions exist.

Subitems (1) and (2). The MPCA is moving the existing requirement under existing part 7150.0100, subp. 10(B) that the entire piping run must be replaced with secondarily contained piping, if metal segments have pitting-type corrosion or have leaked. This requirement has been relocated to consolidate replacement requirements in one area.

Subitem (3). Under subitem (3), the MPCA is requiring pipe segments that have degraded to be replaced. This is a new requirement brought about by an increase in the number of cases where piping has degraded due to age, incompatibility, or poor installation practices. Examples of piping that has degraded, include piping that has an outer protective coating that has cracked or peeled, piping that has swollen or has softened, or piping that has grown in length. Poor installation practices includes piping

that has been nicked or cut while installing fittings or removing outer coatings, piping that has been overheated or charred while installing fittings, and piping with kinks or sharp bends.

Subitem (4). In conformance with 40 CFR § 280.20 and the definition of “replaced” piping in section 280.12, the Agency is establishing the requirement that if 50% or more of a piping run is replaced, the entire piping run must be replaced. This requirement applies regardless of when various segments were replaced or repaired. If a series of repairs or replacements encompass more than 50% of a piping run, then the entire piping run must be replaced.

Item C. This item outlines the conditions that may exist that would allow piping to be repaired, instead of being replaced. The MPCA proposes to move the requirements of part 7150.0100, subp. 9(B) to this item to consolidate repairs in this part.

Subitem (3). Currently, existing part 7150.0100, subp. 10(B) establishes that pipe sections that have leaked must be replaced in their entirety. The MPCA is revising part 7150.0100, subp. 10(B) for two reasons. First, piping appurtenances are readily accessible for repair and can be replaced without damaging the piping; therefore, it is unreasonable for the MPCA to require replacement of the entire piping run if a piping appurtenance in a pipe section leaks. However, failure of a piping appurtenance by corrosion is usually indicative that the entire piping system has corrosion issues, and as a result the entire piping run must be replaced if the release was due to corrosion issues. Second, the Agency is moving the requirements to this subitem to consolidate repair requirements in one location. For these reasons, the proposed revision is reasonable.

Subp. 4. Required permanent closure. Under this proposed subpart, the Agency is proposing that if UST system or piping conditions exist under items A to C, which have a high potential of causing a release, the UST system or piping, as applicable, must be permanently closed in accordance with part 7150.0410, and a site assessment in accordance with part 7150.0345, subp. 3.

Item A. The MPCA is proposing a new requirement that USTs that have shifted upward must be permanently closed, unless repairs can be made to prevent further shifting and to correct any damage that has occurred to the UST system. UST manufacturer installation instructions stress the importance of properly anchoring a UST to avoid shifting. Site inspection standards recommend owners and operators inspect the concrete over USTs to verify that it is in good condition to ensure that the tank is not shifting. As many of the older tank systems age, the tank anchors that hold the UST systems in the ground have failed due to corrosion. As a result, some USTs are starting to float upwards due to high water tables. As the UST floats upwards, great strain is being placed on the UST and the piping. Unless the shifting can be corrected (repaired) there is a high probability of the UST system failing and causing a release. Additionally, when the UST shifts in the ground, the UST can tilt out of level and cause problems with leak detection and interior corrosion due to water collecting at one end of the tank. Concrete cracking and bulging upward over a UST, and the UST risers rising to a point where they start to contact driveway access covers, are indicators that the UST has shifted. The most common repair is replacing the concrete over the UST with concrete of sufficient thickness to counteract the upward buoyancy or lift of the UST. Additionally, it is necessary to inspect piping and sumps for evidence of stress or strain and conduct repairs as necessary. Based on this discussion, the Agency believes that this requirement is reasonable to protect human health and the environment.

Item B. The MPCA is proposing this new requirement. The primary reason for not allowing a non-secondarily contained tank from being repaired is that the deficiency that caused the tank to leak is usually endemic. Even if a tank is repaired, the condition that caused the release could cause another future release; repairing a tank would require the exterior of the tank to be exposed. The process of exposing a tank may inflict additional damage to the tank system. If the exterior of a tank is exposed to

conduct repairs, the tank would need to be recertified by the manufacturer. It is unlikely that a manufacturer will recertify an existing single-walled tank that has been prohibited from installation in Minnesota since 2007.

The MPCA would allow a leaking UST to be retrofitted because retrofitting a tank would involve building a new secondarily contained tank within the shell of the leaking tank. By definition, a retrofitted tank is a new UST and must meet all requirements for a new UST. Additionally, because the leaking tank is being taken out of service all requirements for permanently closing a UST must be met.

Item C. Secondarily contained tanks and piping that have leaked may be repaired due to the added protection that the secondary containment provides to prevent releases. Repairing a secondarily contained UST or piping must ensure that the repairs will allow the interstitial space of the UST or piping to be monitored for leaks. This may involve assuring that all liquids are removed from the interstitial space of the UST or double-walled piping.

If a secondarily contained pipe or tank cannot be repaired in accordance with the requirements of part 7150.0250, subp. 2, the piping or tank must be permanently closed.

RELEASE DETECTION

10. Part 7150.0300 RELEASE DETECTION

This part outlines the requirements for providing leak detection for tank systems.

Subp. 1. General. The Agency is proposing to remove the release detection exemption for emergency generator systems by requiring emergency generator tanks systems to have tank and piping leak detection by October 13, 2020. This proposed amendment conforms to the 40 CFR § 280.10(a)(1)(ii) recent federal rule change that emergency generator tanks are no longer exempt from release detection requirements.

For clarification purposes, the MPCA notes that heating oil tanks and partially excluded tank systems are not required to meet the requirements of this subpart for the reasons discussed under part 7150.0010, subps. 5 and 6.

Item A. The Agency is proposing to change the word “release” to the word “leak” to conform with new definitions. This will clarify that release detection systems must be capable of detecting a leak of a regulated substance from the UST system.

Item C. The MPCA is proposing that release detection equipment must be certified by an independent testing laboratory or a nationally recognized association. To ensure proper function, release detection equipment must meet certain performance standards for conducting leak testing on tanks and piping. Manufacturers use independent testing laboratories and nationally recognized association to test and document that the performance claims for the release detection equipment are being met. Requiring written documentation that performance claims are being met assures that the release detection equipment meets the performance standards of parts 7150.0330 and 7150.0340. The equipment manufacturer or the installer must supply documentation that performance standards are being met. It is reasonable to establish this requirement to ensure that the performance standards of release detection equipment are being met and can be verified at a later date when MPCA staff can review the documentation.

Subp. 2. Release notification. The Agency is proposing to repeal this subpart and move the requirements to the new part 7150.0345, subp. 2. The relocation of information groups the existing

release notification requirements into the new information reporting, investigating, and confirming requirements related to releases or suspected releases into one location for better organization.

Subp. 5. Tanks. The Agency is proposing to replace two words in this subpart to conform to the new definitions discussed under part 7150.0030. The word “release” will be replaced with “leak” for the reasons discussed under part 7150.0030, subps. 25c and subp. 41. The word “materials” will be replaced with “substance” for the reason discussed under part 7150.0030, subp. 22.

Item A. The Agency is proposing to remove the existing requirement that release detection using an ATG must also use inventory control. The proposed change is needed because 40 CFR § 280.43(d) establishes that tank release detection using an ATG be used with inventory control or another test of equivalent performance. ATG exceeds the performance standards of inventory control, with the exception of monitoring the tanks for water monthly. Thus, the only benefit of inventory control is the monthly check for water. The MPCA is adding a new requirement that tanks be checked monthly for the presence of water under proposed part 7150.0216, subpart 2(A)(7), which removes the need to conduct inventory control. This change is reasonable because the requirement to conduct two forms of tank leak detection would cause undue hardship to some owners and operators. By adding the monthly water monitoring, there is no increased risk of a release. The EPA has reviewed and accepted this change to be equivalent with 40 CFR § 280.

Item C. The MPCA is proposing to remove inventory control as an acceptable form of release detection because inventory control alone is only acceptable for 10 years after the installation of the tank. Based on proposed part 7150.0300, subp. 5, UST systems installed after December 22, 2007, are required to use interstitial monitoring as the primary form of release detection. Therefore, tanks installed prior to December 22, 2007, would only be allowed to rely on inventory control until December 22, 2017, at the latest. It is reasonable to remove inventory control as an acceptable form of release detection because the requirements are now obsolete.

With the 2015 revisions to 40 CFR § 280.43(h), EPA now allows statistical inventory reconciliation as an acceptable means for tank release detection. Therefore, it is reasonable for the MPCA to propose inserting the requirements for conducting statistical inventory reconciliation into this item.

Item D. The Agency is proposing to remove the option to conduct manual tank gauging as described in existing item D for tanks with capacities of greater than 1,000 gallons and less than 2,000 gallons for the same reasons described above in item C.

Items E and F. The Agency is proposing to reletter existing items E and F to the new items D and E to adhere to the standards of the MORS.

Subp. 6. Piping. The Agency is proposing changes to this subpart to clarify the original intent of the rule to include piping that conveys a regulated substance from one point to another as part of a UST system, as defined under proposed part 7150.0030, subp. 38. It is reasonable to make this change because there is no distinction between piping that is located above or below the ground when it is part of a UST system. Current subpart 6 addresses piping leak detection for UST systems and the word “underground” has caused confusion as to whether piping release detection is limited to piping physically located underground. The Agency believes that removing the existing reference to “underground” in describing piping will eliminate the confusion by clarifying that all piping used as part of an UST system must have release detection, e.g. aboveground piping located within a dispenser, aboveground piping going to a bulk fueling rack, etc. The Agency believes that this change is reasonable because Minn. R. ch. 7151 (Aboveground Storage of Liquid Substances) regulations do not address aboveground piping originating from a UST. Regardless of whether piping is physically located under the ground, above the ground, or

partially buried, an owner or operator needs to ensure it is functioning without leaks because they can lead to releases and harm human health and the environment.

Currently, the Agency may allow visual inspections for aboveground piping where piping is entirely above grade and can be easily inspected and immediately observed. This visual inspection method must be requested by owners and operators as an alternative method of piping leak detection under existing part 7150.0340 subpart 5. The proposed rules retain this flexibility.

The Agency also proposes to remove the requirement that piping installed on or after December 22, 2007, must comply with existing part 7150.0300, subp. 6(A)(3) or (4). Subitems (3) and (4) are intended for pressurized piping; thus, the requirement must be removed because it does not apply to both pressurized and suction piping. The MPCA proposes to move the existing subitem (3) requirement to item A, which applies to pressurized piping only.

Item A. For the reasons described above, the MPCA is moving the existing part 7150.0300, subp. 6(A)(3) requirement to this amended item.

The Agency also proposes to add a requirement that pressurized piping positioned lower than the top of the tank must be equipped with an antisiphon device. Except for boat marinas' installation codes of practice, manufacturer's requirements and recommended installation codes of practices do not address this piping because piping design generally slopes back to the tank and drains product back into piping in the event of a leak. Without the installation of an antisiphon device on this piping, releases may result in the draining of fuel if the leak point is below the fuel level of the tank. This requirement, which is similar to the requirement for boat marinas, will apply to all piping used as a part of an underground tank systems in which the piping is positioned lower than the top of the tank.

Subitem (2). The Agency is proposing revisions to existing language to adhere to the standards of the MORS.

Subitems (3) and (4). For the reasons described under item A, the MPCA is proposing to combine subitems (3) and (4). The wording has changed but the requirements have remained the same.

Subitem (4). As discussed above, the Agency is proposing to combine existing subitem (4) into proposed subitem (3). Thus, the MPCA is proposing to remove this existing subitem.

Item B. The Agency is proposing revisions to existing language to adhere to the standards of the MORS.

Subitem (1). For similar reasons, as explained in item A, the Agency is proposing to add a requirement that suction piping that is positioned lower than the top of the tank must be equipped with an antisiphon device.

Unit (a). Because a suction system operates at a vacuum, it is not possible to test suction piping at one and one-half times the operating pressure. Thus, this unit is improperly worded. The Agency is proposing to modify the wording to require a tightness test that can detect a 0.1 gallon per hour leak rate at 50 psi pressure, which is the same criteria that suction piping must be tested at during installation. The Agency believes this change is reasonable because it conforms to industry testing standards and corrects existing improper wording.

Item C. The Agency is proposing revisions to existing language to adhere to the standards of the MORS.

Subp. 7. Sump and basin monitoring. The Agency is proposing to repeal this subpart because the requirements for periodic operation and maintenance inspections have been moved to part 7150.0216, subp. 2.

11. Part 7150.0330 METHODS OF RELEASE DETECTION FOR TANKS.

This part outlines the requirements for conducting leak detection on USTs.

Subp. 2. Inventory control. The MPCA is proposing to remove the requirements for inventory control. For the same reasons described under part 7150.0300, subp. 5(C), the release test requirements for inventory control are no longer applicable.

Subp. 3. Manual tank gauging.

Item A. The Agency is proposing revisions to existing lettering, numbering, and language to adhere to the standards of the MORS. Although existing items A to C are now listed as part of the proposed item A, the requirements have not changed.

Item B. Because the requirements for reporting releases or suspected releases are outlined in part 7150.0345, the Agency is proposing to remove the reference to Minn. Stat. § 115.061 under proposed item B.

The Agency is also proposing to remove test criteria for tanks greater than 1,000 gallons in capacity from the manual tank gauging table because manual tank gauging is no longer an acceptable method for release detection under proposed part 7150.0300, subp. 5(D). See SONAR part 7150.0300, subp. 5(D) for further discussion.

Subp. 5. Automatic tank gauging. Inventory control is no longer required to be used in conjunction with an ATG; therefore, the Agency is proposing to delete the reference. For further discussion, see part 7150.0300, subp. 5(A).

Item A. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS.

Item B. For the same reasons discussed under part 7150.0300, subp. 5(A), the Agency is proposing to remove the reference that inventory control must be used in conjunction with an ATG.

To comply with 40 CFR § 280.43(d)(3), the Agency is proposing the requirement that owners and operators must ensure that ATG testing measures the leak status of the UST at least every 30 days, with the leak testing performed in either a in-tank static test mode, subitem (1), or in a continuous in-tank leak test mode with specified conditions, subitem (2).

Subp. 6. Interstitial monitoring. The Agency is proposing minor revisions to existing language to adhere to the standards of MORS.

Subp. 6a. Statistical inventory reconciliation. The Agency is proposing to add subpart 6a to address the requirements of statistical inventory reconciliation (SIR). With the latest changes to EPA regulations, SIR is an acceptable form of leak detection under 40 CFR § 280.43(h). The language for this requirement is equivalent with 40 CFR § 280.43(h). Historically, SIR has been approved as an other acceptable form of leak detection in Minnesota under part 7150.0330, subp. 7. The method has proved an adequate form of leak detection.

Subp. 7. Other methods. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS.

12. Part 7150.0340 METHODS OF RELEASE DETECTION FOR PIPING.

This part outlines the requirements for conducting leak detection on the piping for UST systems. This part has been rewritten to adhere to the standards of the MORS. Except for the requirements as to who

may conduct testing, the basic requirements, which are based upon 40 CFR § 280.44(a), have remained the same.

Subp. 2. Automatic line-leak detectors. The Agency is proposing to move the existing requirements into items A and B for better organization.

Item A. The Agency is proposing to replace the requirements for who may conduct testing of line-leak detectors with the test criteria from existing subpart 2. Requirements regarding who may conduct the testing would be moved to proposed item D(1).

Item B. To be consistent with EPA regulations, the Agency is proposing to remove the requirements to comply with manufacturer's test requirements.

The requirements from existing subpart 2 that would be moved to item B address methods of continuously alerting an operator of a leak. The Agency considers the use of the word "continuously" as posing an unreasonable requirement on owners and operators. For example, in order to be notified continuously, the facility would need to be staffed 24 hours per day, 365 days per year. Outside of normal business hours or on weekends, when owners and operators may not be present, the throughput of product tends to be so low that the risk of environmental damage due to a leak going undetected is low. If a leak is detected by the line-leak detector, the line-leak detector will either restrict the flow of product, or will stop the flow of product entirely. The Agency believes that the revised requirement will adequately alert an operator of a possible leak within a reasonable period of time. The Agency believes that having an operator on site during normal business hours is adequate for alerting an operator of a leak. Therefore, the Agency is proposing to modify the requirements for alerting an operator of a leak from being continuously alerting to alerting during normal business hours.

Item C. The Agency is proposing to move the requirement that a physical leak must be created to test line-leak detectors from existing item C to proposed item D(2). As part of proposed item C, the MPCA is also proposing to require that line-leak detectors used at unattended card-lock facilities must shut off the flow of product if a leak is detected.

The MPCA has interpreted the meaning, in subpart 2, of "continuously alert the operator to the presence of a leak" to mean that the operator must be alerted of a leak in a fairly short period of time so that corrective actions can be made in a timely manner. If the operator is notified of a leak quickly, a line-leak detector that restricts the flow of the regulated material is acceptable because the risks of damage to the environment is minimal. At unattended card-lock facilities, a leak may go undetected for a long period of time, due to an operator only being required to be on site once per week; therefore, the MPCA considers a flow restricting line-leak detector to be unacceptable for use at these facilities.

One of the following line leak detection configurations can be used at unattended card lock facilities to ensure, in the event of a release, that the flow of product stops:

- Line-leak detectors that completely shut off the flow of the regulated substance, such as an electronic line-leak detector, programmed for positive shutoff, or
- Line-leak detectors that restrict flow of the regulated substance may be used on double-walled piping conducting interstitial monitoring with a sump sensor that shuts off the flow of the regulated substance.

Item D. The Agency is proposing to combine the function test requirements of existing items A to D into proposed item D. With the exception of adding language to clarify who may conduct the function testing of the line-leak detector, the requirements have remained the same.

Subitem (1). Earlier versions of this requirement left it unclear as to who was allowed to conduct testing. The intent of the requirement, from its inception, was to allow certified contractors and testers that specialize in conducting the testing to perform line-leak detector function testing. The Agency is proposing to reword the requirement to remove confusion as to who may conduct the function testing of line-leak detectors. The requirements outlining who may conduct the testing of the line-leak detector are outlined in proposed part 7150.0216, subp. 6.

The Agency is proposing that testing be conducted according to 7150.0216, subp. 3, to be in compliance with 40 CFR § 280.44 (a).

Subp. 3. Line tightness testing. The Agency is proposing minor revisions to existing language to adhere to the standards of MORS. The requirements have not changed.

The MPCA notes that the testing conducted by an automatic line-leak detector is not the same as the periodic line tightness testing. An automatic line-leak detector is required to detect leaks at a minimum of 3 gallons per hour (gph) at 10 psi. A periodic line tightness test is intended to find 0.2 gph leaks at least monthly, or a 0.1 gph leak at 1.5 times the operating pressure annually.

Subp. 4. Interstitial and sump monitoring. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS and is changing the name of this subpart to include sump monitoring, since this subpart applies to both interstitial spaces and sump areas.

Subp. 5. Other methods. The Agency is proposing minor revisions to existing language to adhere to the standards of the MORS.

REPORTING, INVESTIGATING, AND CONFIRMING RELEASES

13. Part 7150.0345 REPORTING, INVESTIGATING, AND CONFIRMING RELEASES.

The Agency is proposing this new part to outline the steps that owners and operators must take to report, investigate, and confirm releases. Except as noted below, the proposed requirements conform to 40 CFR Part 280, Subpart E – Release Reporting, Investigation, and Confirmation.

Subp. 1. Proposed part 7150.0345, subp. 1 establishes requirements for investigating and confirming releases.

Item A. The Agency is proposing that owners and operators must immediately investigate and confirm all suspected releases in conformance with 40 CFR § 280.52. This is consistent with the requirements of Minn. Stat. § 115.061 to report and remedy releases.

Item B. The Agency is proposing that owners and operators must investigate unusual operating conditions within 24 hours of discovery under specified conditions. This item outlines the steps that owners and operators are required to perform, according to 40 CFR § 280.52, when investigating an unusual operating condition. Under 40 CFR § 280.50(b), EPA provides some examples of unusual operating conditions. For example, the erratic behavior of product dispensing equipment, the sudden loss of product from the UST, the unexplained presence of water in the UST, and the presence of liquid in the interstitial space of secondarily contained systems. While EPA only provides three examples, the Agency expects numerous scenarios and is proposing a definition under proposed part 7150.0030, subp. 51a that encompasses other unusual operating condition scenarios. For example, safe suction lines losing their prime, mechanical line leak detectors restricting the flow of product indicating a release, and SIR reports indicating small product losses over several months while achieving passing leak reports. Any abnormalities while conducting leak detection according to part 7150.0330 or 7150.0340 would be an unusual operation condition that must be investigated. The requirement to investigate unusual

operating conditions is reasonable to assure the system is functioning properly to protect human health and the environment.

Subitem (1). The Agency proposes owners and operators conduct a visual inspection of the UST system as the first step in investigating and confirming suspected releases and unusual operating conditions. The MPCA would require owners and operators to visually inspect the components of the tank system that are readily accessible. Generally, this would be within dispensers, dispenser sumps, spill buckets, and tank top sumps. If a leak is confirmed during the visual inspection, additional testing would not be necessary. The MPCA believes that a visual inspection is a reasonable first response action to any unusual operating condition that may exist to verify if a release has occurred. The Agency believes this requirement would not be less strict than EPA regulations, because the visual inspection is only to confirm a leak. If a leak is not confirmed, then owners and operators must conduct additional testing as outlined in this subpart and according to 40 CFR § 280.50 and 40 CFR § 280.52.

Subitem (2). The Agency is proposing to require owners and operators to repeat any tests, if applicable, that indicated an unusual operating condition or suspected leak. If the additional testing establishes the UST system is not leaking and the unusual operating condition has been resolved, owners and operators may resume operating as normal and no additional testing is required. The Agency believes that requiring owners and operators to repeat applicable UST system testing complies with 40 CFR § 280.50 by providing a method to establish that there is not a release of a regulated substances to the environment. Additionally, the Agency believes that repeating the test is a reasonable approach to confirming the initial result that an unusual operating condition actually exists.

Item C. The Agency is proposing to require owners and operators to initiate specific actions within 24 hours of discovering an unusual operating condition or confirming an unusual operating condition under item B, subitem (2).

Subitem (1). The Agency is proposing to require owners and operators to conduct tightness testing of the UST or piping system depending on the nature of the unusual operating condition. Tightness testing will be required if repeat testing conducted under item B, subitem 2 confirms the initial result that an unusual operating condition exists. The Agency believes that these requirements will comply with 40 CFR § 280.52(a).

40 CFR § 280.52(a) establishes that owners and operators must conduct tightness testing of UST and piping systems to confirm or refute a suspected leak. The Agency interprets 40 CFR § 280.52(a) to require tightness testing on tanks and piping, as appropriate. For example, if there is a suspected tank leak, the tank and tank interstice must be tightness tested. Line tightness testing would not be required. If a line leak is suspected, the piping and associated secondary containment must be tightness tested; however, the UST would not require testing. If statistical inventory reconciliation (SIR) indicates a possible leak, the tank and piping must be tightness tested because SIR is a leak test for the entire UST system. The MPCA believes it is reasonable to require tightness testing on tank system components suspected of leaking, not the entire system. Requiring a tightness test on tank systems components that are not suspected of leaking or malfunctioning would place undue hardship on owners and operators without added benefit to the environment.

Subitem (2) The Agency is proposing that if a leak is contained in a secondary containment area, the containment area must be integrity tested to ensure that no product has been released to the environment. A leak into a secondary containment sump would require sump integrity testing, if the product level reaches the lowest penetration point in the sump, as indicated either by actual product levels or staining on the walls of the containment sump. This subitem complies with 40 CFR § 280.52(a).

Item D. The Agency is proposing that if the investigation or tightness testing for an unusual operating condition under items B and C of this subpart show that the UST system is not leaking, owners and operators may resume operation using the leak detection method allowed under part 7150.0300 before the discovery of the unusual operating condition. This complies with 40 CFR § 280.52(a).

Item E. The Agency is proposing to require owners and operators to remove as much of the regulated substance from the UST system as is necessary to prevent further product from being released. This requirement is based upon 40 CFR § 280.62. The MPCA is also proposing language to require an owner and operator to repair, replace, upgrade, or close the UST system to meet the requirements of 40 CFR § 280.52(a)(2). This will prevent continuation of any release to the environment.

Subp. 2. Reporting releases or suspected releases. The Agency is proposing to require a person with knowledge of the release of a product under their control to report the release to the Minnesota duty officer as required by Minn. Stat. § 115.061. The MPCA is also proposing additional conditions under which a release must also be reported, proposed items A to C(3) that are based upon 40 CFR § 280.50, except that item C(2)(c) is based upon 40 CFR § 280.52(a).

As discussed above, Minn. Stat. § 115.061 does not limit the reporting of releases or suspected releases to owners and operators. Persons who are controlling a product include owners, operators, employees who control dispensing of a regulated substance, and service technicians who are working on the UST system. In interpreting this requirement, the Agency believes it is necessary to exercise discretion to avoid duplicate reporting that results in no added environmental benefit. It is possible that more than one person will have knowledge of the same release of a product. The rule follows the statute by making any person potentially subject to the reporting requirement, but MPCA recognizes that in practice, reports by multiple people for the same event are generally not necessary.

Subp. 3. Assessing site; permanent closure or status change. The Agency is proposing to move the requirements for conducting a site assessment from existing part 7150.0420 to this subpart. The basic requirements for conducting a site assessment have remained unchanged, however, the requirements were reworded to conform to 40 CFR § 280.72.

UST SYSTEM CLOSURE

14. Part 7150.0400 TEMPORARY CLOSURE.

Subps. 2 and 4. The Agency is proposing minor changes to adhere to the standards of the MORS. The requirements of part 7150.0400 have not changed.

15. Part 7150.0410 PERMANENT CLOSURE AND CHANGE IN STATUS TO STORAGE OF NONREGULATED SUBSTANCES.

This part outlines the requirement owners and operators must follow to permanently close an UST or to change it to storing a nonregulated substance.

Subp. 1. Requirements. The Agency is proposing revisions to accommodate the proposed repeal discussed under subp. 2 of this part.

Subp. 2. Notice of closure or change in status. The MPCA is proposing to repeal this subpart because the requirement to notify the Commissioner of a closure or change in status is already identified in part 7150.0090 subp. 2, Notification of installation, replacement, or change in status. The MPCA believes it is reasonable to repeal this subpart to reduce redundancy. Notification is required under 40 CFR § 280.71.

Subp. 3. Permanent closure. The Agency is proposing to reorganize existing requirements into two items for better organization.

Item A. Under existing part 7150.0420, subp. 3, the MPCA requires owners and operators to remove liquids and sludges from tanks and piping when permanently closing a UST. Current state regulations do not require the removal of liquids and sludges from piping when only the piping system is being taken out of service. Furthermore, 40 CFR § 280.71 does not address removing liquids and sludges in any piping being taken out of service. Any regulated substances left in piping systems that have been permanently closed pose a risk of being released to the environment. The MPCA believes that it is reasonable to expand this subpart to include requirements for permanently closing piping systems also, and is proposing to require liquids and sludges to be removed from any piping being permanently closed to protect human health and the environment.

Item B. Both the current part 7150.0420, subp. 3 and 40 CFR § 280.71 require permanently closed tanks to be removed from the ground or filled with an inert solid material. The requirement for USTs closed in place to be filled with a solid inert material that is free of voids that would allow flammable or hazardous vapors or liquids to accumulate is consistent with § 5704.2.13.1.4 of the Minnesota State Fire Code. It is reasonable to include this clarification to ensure owners and operators do not have conflicting regulations when considering closure in place.

Item C. The Agency is proposing that an owner and operator must ensure a site assessment is conducted in accordance with part 7150.0345, subp. 3 for all tanks and piping that is permanently closed. This requirement comes from part 7150.0420 and has been relocated to this part for better organization. The requirement remains unchanged. The EPA has identified piping as the number one source of releases from UST systems and recommend a site assessment for pipe only replacements as being beneficial to protect human health and the environment.

Item D. The MPCA is proposing to require owners and operators to conduct a site assessment when a retrofit lining is installed in a UST according to part 7150.0205, subp. 1. When a retrofit tank is built inside of the original tank upon which the new retrofit tank is secured, the MPCA considers the original UST as being permanently closed.

This proposed requirement would ensure that a site assessment is conducted when the host tank is taken out of service and a retrofit tank is installed. The purpose of a site assessment is to address, as soon as possible, any releases. Conducting a site assessment when a tank is retrofitted would ensure that releases are investigated and remediated in a timely manner. Retrofit tanks may have a lifespan of 30 years, which would create an unacceptable delay in addressing a release that may have occurred from the host tank. Generally, after installation of the retrofit tank, there are not reasons to conduct a site assessment during the life of that tank. Therefore, the proposed requirement to conduct the assessment at the time of the retrofit minimizes potential harm to the environment and is reasonable.

Subp. 4. Storing nonregulated substances. The Agency is proposing minor revisions to adhere to the standards of the MORS and updated the reference to part 7150.0420, which was repealed and moved to part 7150.0345, subp. 3. The requirements have not changed.

Subp. 5. Certification of closure. The Agency is proposing to reorganize the existing subpart 5 requirement into proposed items A and B for increased readability and clarification. In addition, the MPCA is also proposing to move the existing part 7150.0410, subp. 6 requirement into the proposed item C. To clarify notification requirements, the Agency is also proposing to add a reference to the certification on the notification form as required under part 7150.0090, subp. 2. The combined requirements from this subpart and subpart 6 have not changed.

Subp. 6. Tank system closure certification. The MPCA is proposing to repeal this subpart and merge the requirements of this subpart with subpart 5 above.

Subp. 7. Cleaning and closure procedures. The Agency is proposing clarifications to ensure that owners and operators understand that they must comply with subpart 7. The MPCA is proposing changes to update the codes of practices required under 40 CFR Part 280.

16. Part 7150.0420 SITE ASSESSMENT.

The Agency is proposing to repeal this subpart because the requirements for conducting site assessments are now in proposed part 7150.0345, subp. 3. It is reasonable to move the requirements to this new location for organization and clarification purposes. The new location integrates the site assessment requirements into the larger release investigation process. The requirements have not changed.

17. Part 7150.0430 PREVIOUSLY CLOSED UST SYSTEMS.

The Agency is proposing minor revisions to adhere to the standards of the MORS. Also, the MPCA is updating references to existing part 7150.0420, which have been moved to proposed part 7150.0345, subp. 3. The requirements have not changed.

18. Part 7150.0445 CLASS A, B, AND C OPERATOR REQUIREMENTS.

The Agency is proposing to move the requirements for class A, B, and C operators in the current part 7150.0211 to proposed part 7150.0445. This part was relocated to place the operator requirements in the section of Minn. R. ch. 7150 for Operator Requirements, Reporting, and Record Keeping. Except as noted otherwise, existing part 7150.0211, remains unchanged, though they are renumbered to adhere to the standards of the MORS.

Subp. 1. General. The MPCA is proposing to move current definitions of Class A, B, and C operator to part 7150.0030 DEFINITIONS. This change is needed to keep all the definitions in a designated location in the rule for clarifications and readability.

Existing subpart 2 became subpart 1. The MPCA is proposing to divide the subpart into items to make it easier to understand, and to incorporate existing subpart 3. To comply with part 40 CFR § 280.241(b) the Agency is also requiring each individual who meets the definition of a Class C operator must be designated as a Class C operator for the UST facility.

Subp. 2. Class A operator responsibilities. The MPCA is proposing to add a requirement that the Class A operators must be knowledgeable about the purpose, method and function of listed tank system components. The MPCA believes the Class A operator needs at least some familiarity with the workings of a UST system to be able to properly manage personnel responsible for maintaining the facility. This complies with 40 CFR § 280.242(a)(1).

Subp. 3. Class B operator responsibilities. To comply with 40 CFR § 280.242(b)(1), the Agency is proposing to include a requirement that the Class B operators must be knowledgeable about the purpose, method, and function of listed tank system components. Defining the minimum standard for Class B operators is reasonable to ensure adequate knowledge to implement the rule requirements.

Subp. 4. Class C operator responsibilities. The Agency is proposing to add a requirement that Class C operators be trained to take appropriate action in response to emergencies or alarms caused by spills and releases according to 40 CFR § 280.242(c). Proper response training for this class of employees will minimize releases in the event of an emergency. The other requirements for Class C operators have not changed.

Subp. 5. Class A and B operator examinations. The Agency is deleting the timetable upon which Class A and B operators must take the agency-administered examination, which is currently part 7150.0211,

subpart 7, item C. The Agency believes this change is justified because it is outdated. The examination waiver for being certified in another state and passing an equivalent examination is now mandatory, rather than at the Commissioner's discretion. All other requirements remain the same.

Subp. 6, item B. The Agency is proposing to reduce the time period for attending an agency-approved training course, and retaking and passing the examination from 60 days to 30 days in accordance with 40 CFR § 280.244.

Subp. 7. Training course approval. The Agency is proposing to move existing part 7150.0211, subp. 9, to this subpart with minor changes to adhere to the standards of the MORS. The requirements have not changed.

19. Part 7150.0450 REPORTING AND RECORD KEEPING.

This part outlines the requirements owners and operators must follow to report tank system releases, unusual operating conditions, or inspection and testing activities.

Subp. 2, Reporting.

Item C. The MPCA is proposing that to add a cross-reference to the existing requirement that releases be reported in accordance with part 7150.0345 because that part addresses appropriate responses to leaks and releases.

Item F. The Agency is proposing updates to reflect renumbering changes that result in no significant changes to the requirements.

Subp. 3. Record retention.

Item A. The Agency is proposing updates to reflect renumbering changes that result in no significant changes to the requirements.

Item C. The MPCA is proposing minor changes to reflect proposed numbering changes throughout the rule and to adhere to the standards of the MORS. There is no change to this requirement.

Item D.

Subitem (1). The MPCA is proposing minor language changes to provide clarity and to adhere to the standards of the MORS. The requirements have not changed.

Subitem (2). In 2007, the MPCA proposed a 10 year record retention period. The basis for the established time period was that it was "...consistent with most other UST record retention times." See page 43 of the 32SR1751 SONAR. In this rulemaking, the Agency is proposing to reduce the time period for record retention from 10 years to 5 years. This proposal is reasonable because the MPCA currently inspects UST systems approximately every three years and Agency staff are able to inspect current records during those inspections to determine compliance status. Therefore, it is not necessary to retain records for 10 years. The Agency believes this change is also reasonable because it reduces the cost of record retention for owners and operators without negatively impacting human health and the environment. It is consistent with the recommended retention period in 40 CFR § 280.45.

Unit (a). The Agency is proposing to remove the record keeping requirements for inventory control because part 7150.0330, subpart 2 has been proposed to be repealed. To support leak detection requirements in part 7150.0330 subp. 6a for statistical inventory reconciliation, the Agency is proposing to replace the wording with requirements for keeping statistical inventory reconciliation records.

Unit (c). The Agency is proposing to remove the reference to monthly or annual tightness testing. The Agency believes this change is reasonable because part 7150.0330, subp. 4 already addresses applicable

tightness testing requirements. The Agency believes the monthly and annual testing language was erroneously included in the original requirement and it is necessary to correct this oversight by deleting that language.

Unit (e). The Agency is proposing minor changes to adhere to the standards of the MORS. The requirements remain unchanged.

Units (j) and (k). The Agency is proposing minor changes to adhere to the standards of the MORS. The requirements remain unchanged.

Unit (l). The Agency is proposing to remove the requirements in the current unit (l) because they are now covered in the proposed unit (j).

Unit (m). The Agency is proposing to renumber existing unit (m) to unit (l) to reflect renumbering changes required as a result of the deletion of existing item (l). The requirements remain unchanged.

Subitem (3). For the reasons same reasons discussed under proposed part 7150.0450, subp. 3, item D, subitem (2), the Agency is proposing to reduce the time period for record retention from 10 years to 5 years.

Item E. The Agency is proposing to add a requirement that owners and operators must retain documentation that testing wastes generated during sump and spill-bucket testing are properly disposed of in accordance with state and local regulations for a period of 5 years. The duration will allow the Agency to verify proper disposal since the last inspection. It is reasonable for the Agency to add this requirement as the new item E to ensure owners and operators are properly disposing of wastewater generated during the sump and spill-bucket testing.

Item F. Under the newly proposed item F, the Agency is proposing to update references to accommodate the repeal of existing part 7150.0420 and relocation of information to part 7045.0345. The proposed changes also include changes to adhere to the standards of the MORS. The requirements remain unchanged.

Item G. Under the renumbered item G, the Agency is proposing to remove the requirement that owners and operators must retain operator certification records of former employees and to update the wording to keep the records for as long as the class A or B operator is employed at the facility. The Agency believes this change is reasonable because it removes burdensome record keeping requirements from owners and operators, because the MPCA has not found this to be a problem in the past. The Agency updated references to reflect renumbering changes.

Item H. Existing item G. has been renumbered as the new item H. For the same reasons discussed under proposed part 7150.0450, subp. 3, item D, subitem (2), the Agency is proposing to reduce the time period for record retention from 10 years to 5 years.

Item I. Existing item H has been renumbered as the new item I. For the same reasons as item G above, the Agency is proposing to remove the requirement that owners and operators must retain operator certification records of former employees and to update the wording to keep the records for as long as the class C operator is employed at the facility. The Agency updated references to reflect renumbering changes.

Item J. Under proposed item J, the Agency is proposing to add language that outlines record retention requirements for documenting compliance with part 7150.0216. For consistency with proposed part 7150.0450, subp. 3, item D, subitem (2), it is reasonable to establish a frequency of 5 years for record retention.

Item K. The Agency is proposing to require owners and operators to retain system compatibility records for the life of the UST system. This is reasonable because incompatible substances can lead to degradation of a UST system, increasing the risk of release. Maintaining the records provides a demonstration of compatibility. These requirements conform to 40 CFR § 280.32.

20. Part 7150.0451 UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS AND AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS.

The Agency is proposing to conform to federal requirements by adopting 40 CFR Part 280, Subpart K - UST Systems with Field-Constructed Tanks and Airport Hydrant Fuel Distribution Systems by incorporation. To retain authorization to implement and enforce Part 280, the MPCA must, at a minimum, adopt requirements that are as stringent as federal requirements. It is reasonable to adopt the federal requirements because the Agency is not aware of any facilities regulated under this part. As a result, the Agency does not have direct experience with the problems unique to these types of tanks and does not have justification for specific requirements that would exceed the federal requirements. In the absence of specific need for additional requirements, consistency with the federal rules will provide time for the newly-regulated industries to become more familiar with the types of regulations for UST systems.

21. Part 7150.0500 INCORPORATION BY REFERENCE.

The part incorporates the reference documents that are used in Minn. R. ch. 7150. The codes of practice were updated to repeal outdated codes of practice and include new codes of practice. The updated codes of practice conform to 40 CFR Part 280.

6. Regulatory and additional analysis

A. Regulatory analysis

This part addresses the requirements of Minn. Stat. § 14.131 (a), which compel state agencies to address a number of questions in the SONAR. In some cases, the response will depend on a specific amendment being proposed and specific detail will be provided. However, for most of the questions, the MPCA's response can be general and will apply across all of the components of this rulemaking, regardless of the specific amendment being proposed.

1. Description of the classes of person who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule.

The classes of persons who will potentially be affected by the proposed rule changes are:

- Owners and operators of UST systems
- Manufacturers of UST systems
- Installers of UST systems
- Contractors and consultants who provide UST system-related maintenance and operational services
- State and federal government agencies that regulate or are otherwise involved with UST systems
- Minnesota citizens

EPA revised the rules at 40 CFR part 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, on July 15, 2015. The proposed Minnesota rules are based on already applicable federal rules and already applicable federal costs. EPA has conducted an assessment of the costs and benefits of the federal requirements and the Agency accepts the assessment. See SONAR Attachment 2. However, the Agency proposes to include additional Minnesota (MN) amendments. The additional amendments will create minor costs that will be discussed in relevant portions of this SONAR. The federal estimate for costs for secondary containment and owner/operator training would be lower in Minnesota because those costs are already in existing rules.

Owners and operators of UST systems who are responsible for the day-to-day operation and maintenance of UST systems will bear a majority of the costs for the proposed rules. However, these costs are minor for proposed MN-only amendments. Owners and operators of UST systems, manufacturers of UST systems, installers of UST systems, contractors and consultants who provide UST system related maintenance and operational services, and state and federal government agencies that regulate or are otherwise involved with UST systems will bear minimal administrative costs in learning about and complying with the new MN-only requirements. Overall, the MN-only requirements are designed to provide clarification and additional protection of human health and the environment. See the respective rationale for a more detailed discussion.

Also, tank owners and operators will bear both the costs and benefits from the proposed rules related to conducting proposed testing and additional inspections to ensure UST systems are working properly; thus, the rules protect their long term investment, and help to ensure human health and the environment is protected in the communities they serve.

Minnesota citizens are not expected to incur direct costs. Any increased costs to tank owners or operators may be passed indirectly through to citizens via higher prices. However, citizens will benefit from the implementation of additional MN-only requirements. Additional inspections, testing, soil sampling analysis, and clarification of actions required when an unusual operating condition presents itself will assure tank systems are operating properly. Thus, the proposed revisions will result in protecting land and ground water resources and reducing the number and volume of releases and spills from tank systems. As a result, the proposed revisions will reduce the state's liability for reimbursing owners and operators for costs associated with the cleanup of tank releases and spills covered by the State's Petroleum Tank fund (Petrofund) program under Minn. Stat. §§ 115C.08 and 115C.09. Reduced cleanup costs borne by the state will result in reduced costs to its taxpaying citizens.

All classes of affected parties will benefit from the clarification of rule language, elimination of uncertainty and ambiguity, and more logical and readable organization of the requirements.

2. The probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues.

The proposed rule changes are only expected to impose costs on State agencies that own or operate regulated UST systems. The Agency estimates there are less than 50 regulated sites owned by state agencies that would be affected by the proposed changes.

The costs to the MPCA for implementation and enforcement of the proposed UST rule changes is expected to be minimal and absorbed into the existing program. The MPCA expects to:

- Develop technical guidance
- Communicate changes to the regulated community
- Update agency databases, forms, and documents to reflect the new rules

The proposed MN-only revisions will not have any negative impact on state revenues. The Agency collects no fees to administer the program. In fact, the proposed MN-only revisions are expected to reduce the Petrofund expenditures for leak site cleanup projects over time, since there will be fewer releases from properly maintained and operated UST systems.

3. A determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule.

EPA revised the rules to 40 CFR part 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, on July 15, 2015. The promulgation of these rules will affect all owners and operators of federally regulated UST systems throughout Minnesota, regardless of whether the Agency amends its existing rules. If the MPCA does not amend existing rules, EPA will have jurisdiction and enforce the federal rules. The MPCA considered the following alternatives when developing the proposed rule:

Option A. Not pursuing any new rulemaking. This option would have made the state and federal UST rules inconsistent and confusing to owners and operators. Additionally, this option was not viable because the MPCA is currently authorized to administer the UST program and in doing so must be no less restrictive than the federal rules. In order to continue to implement our program, a rule revision is required at the state level. Otherwise, Minnesota's state program approval would have been revoked. If the program were revoked, owners and operators would be subject to both state and federal rules. Therefore, this option was rejected.

Option B. Adopting the federal rule without changes into current state rules. This option would limit the ability to clarify rule language and alter rule language for specific MN-only requirements. The Agency

believes that it is reasonable to establish requirements that are stricter than EPA requirements for certain provisions. Those provisions are discussed in greater detail under the respective rationale located in section 5(B) of the SONAR. Also, please refer to the discussion in Option C below.

Option C. Adopting federal rules with modifications that are specific to Minnesota. When EPA's final rule was issued in July 2015, the Agency carefully reviewed the federal requirements and determined that neither Option A or B sufficiently addressed concerns with the operation of USTs. The Agency believed that additional amendments were needed:

- To clarify existing state rules
- To clarify what conditions constitute repair, replacement or removal
- To clarify notification requirements
- To clarify required actions for unusual operating conditions
- To clarify who can do repair testing and inspections of UST systems
- To address new technologies not addressed in the federal rules

The MPCA wanted to address the above items to ensure clarity and consistency with the interpretation of the proposed rules for regulated parties and state regulators. Additionally, the Agency included amendments to address issues identified throughout the rulemaking process. For these reasons, the MPCA pursued Option C.

4. A description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the Agency and the reasons why they were rejected in favor of the proposed rule.

See the discussion in 6.A.3 above.

5. The probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals.

Estimated types of costs of compliance are discussed below and illustrated in SONAR Attachment 6.

a) Owners and operators of regulated UST systems

A majority of the proposed rule revisions where extra costs would be incurred are associated with the revision of 40 CFR pt. 280 - Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, July 15, 2015. EPA has conducted an assessment of the costs and benefits of the federal requirements and the Agency accepts the assessment. See SONAR Attachment 2. It is noteworthy that many of the new federal requirements already exist in current Minnesota rules such as secondary containment on newly installed UST systems, monthly sump inspections, and operator training.

The MPCA has also added requirements that may add minimal costs to owners and operators for the topics listed below (MN-only requirements).

- 1) USTs that store other potentially harmful substances must be compatible to the substance being stored. No other requirements apply to USTs storing other potentially harmful substances. Examples of other potentially harmful substances include calcium chloride, magnesium chloride, or diesel exhaust fluid. The costs associated with this requirement should be minimal to non-existent if stored in a compatible tank system.
- 2) Double-poppet shear valves will now be required for all newly installed shear valves and are only required as they are replaced or installed. The approximate cost for this is an extra \$30

per shear valve. This is a one-time cost at the time of installation and is only required upon replacement of the shear valves. A small facility may have 2 to 6 shear valves (\$60 - \$180), a medium sized facility may have 7 to 18 shear valves (\$210 - \$540), and a large facility may have 18 or more shear valves (\$540) if they are replaced or installed all at one time. A double-poppet shear valve is designed to increase safety by decreasing the hazards associated with collision or fire at the dispenser.

- 3) Retrofit tank systems are a newer tank construction technology that is not specifically addressed in existing MPCA rules or federal rules. Retrofit tank systems are typically installed because the existing tank is no longer suitable to store the regulated product and complete removal and replacement is not feasible due to site constraints. Since a retrofit tank system is an alternative to a new tank system, it is subject to the same requirements as a new tank system (i.e., secondary containment and associated piping). Because retrofit tanks are an alternative to installing an entirely new tank system, it is an option the tank owner/operator selects. The owner can choose the lower-cost option of an entirely new tank or a retrofit tank, so the retrofit option does not increase costs to owners.
- 4) For submersible pump sumps installed prior to December 22, 2007, proposed rules require submersible pump sumps be accessible for inspections and not covered with soil or obstacles that prevent visual inspections. The costs should be minimal because the MPCA estimates an owner or operator is capable of removing the soil from around the submersible pump in approximately one hour. At an hourly rate of \$25/hour, the cost is approximately \$25 per sump. This will be a one-time cost and will only affect submersible pumps installed before December 22, 2007, that are covered with soil or other obstructions. A small facility may have 1-2 submersible pumps (\$25 - \$50), a medium sized facility may have 3 - 6 submersible pumps (\$75 - \$150), and a large facility may have 6 or more submersible pumps (\$150 or more). Conservatively, the Agency estimates that 20% of the submersible sumps will require soil and/or obstacle removal. The owners and operators may also incur lower maintenance and pipe replacement costs if soils are removed to prevent corrosion, offsetting the time to clear soil/obstacles.
- 5) Underdispenser containment. In addition to requiring underdispenser containment when work is performed beneath the shear valve, as required by federal rules, the proposed MPCA rule also requires the underdispenser containment to be installed when concrete or base material beneath the dispenser is being replaced or modified. For example, when the concrete island is being replaced, but no work is being performed beneath the shear valve. The cost analysis for adding underdispenser containment to this work would be approximately \$2,000 per dispenser, which would include the cost of the sump and the labor to install the sump. This cost does not include electrical, concrete or labor for concrete costs since that was the original intent of the work. It is a one-time cost and only applicable for dispenser sumps that do not currently have underdispenser containment sumps. The MPCA expects this to affect few owners/operators because island replacements alone are not typical. More often, the piping is being replaced, or piping reconfigurations are occurring, which trigger the federal requirements and otherwise require underdispenser containment.
- 6) Emergency stops are currently required at retail fueling facilities according to the Minnesota State Fire Code. The addition of this requirement will add no extra costs to owners and operators who comply with existing Minnesota State Fire Code.

- 7) Corrosion protection testing and repairs. The proposed rule language on who and how cathodic protection systems can be repaired is for clarification purposes only and does not establish any new requirements and should not add any additional costs.
- 8) Agency-approved testers. The MPCA has added language to clarify who can perform tank system testing to ensure experienced and qualified technicians, consistent with industry standards and manufacturer's requirements, perform testing. Owners and operators may become agency-approved testers if they elect to become an MPCA-certified UST supervisor and contractor, and be certified by the equipment manufacturers. The current cost of becoming an MPCA-certified UST contractor is a one-time fee of \$795 to attend a certified contractor course. The agency-approved tester would also incur a fee of \$425 to attend recertification class every two years. Application fees of \$50 would also be incurred upon initial certification and recertification.

The MPCA is aware of one owner and operator within the state with an interest in testing their own equipment to comply with the new testing requirements, and this particular owner is currently an MPCA-certified contractor who would bear minimal costs for manufacturer certification if such certifications are available. Costs for certified contractors are discussed below See under section 6.A.5.d of the SONAR.

The MPCA anticipates many owners or operators will employ an independent testing laboratory or a certified contractor who currently meets agency-approved tester criteria to conduct compliance testing at their facilities. Increased costs to the independent testing laboratories or certified contractors would be passed on to owners and operators, but as discussed below at section 6.A.5.d, the MPCA anticipates these costs to be minimal. In addition, the incremental agency-approved tester costs would be distributed among the many owners and operators of tank systems.

- 9) Unusual operating conditions, repair, replacement, and required permanent closure. The MPCA has added language that describes and clarifies actions and steps to take when an unusual operating condition exists or a release to the environment has occurred or a release is imminent. The proposed clarifications do not add extra costs to the owner/operator as they have always been required to have compliant tank system equipment. This requirement simply clarifies situations where owners/operators must repair, replace, or permanently close non-compliant equipment.
- 10) Antisiphon devices are now required on suction or pressurized piping where the piping is positioned beneath the top of the tank. In the event that one of these piping configurations leaks, the antisiphon device will minimize the risk of siphoning the tank. These piping configurations are most likely found with mounded systems and marinas where the tank is located uphill from the shoreline and piping runs downhill to the dispenser. A one-time cost of installing this device is approximately \$1,000 for each piping run that is positioned beneath the top of the tank. Marinas will most likely have only one tank system (\$1,000) that pumps premium non-oxygenated gasoline for boat motors. A medium size facility will have 2-4 tank systems (\$2,000-\$4,000). The MPCA is not aware of any existing facility that has over 4 tank systems that will need to retroactively install an anti-siphon device to meet this proposed rule. This cost varies based on the system configuration and electrical needs.
- 11) Line-leak detectors on card-lock facilities will now be required to shut down the flow of product if a release is detected. A card-lock facility is defined as a facility which is not attended during business hours (six hours a day excluding holidays and weekends). Those

systems that do not have a line-leak detector that shuts down the flow of product when a leak is detected, or a sump sensor that shuts down the submersible pump if conducting interstitial monitoring, will incur an expense to install such systems. The installation of a line-leak detector that shuts down the flow of product will have a one-time cost approximately \$1,200 per product line. The one-time cost to install a sump sensor with positive shut off will cost approximately \$500 per sump. The costs may change depending on system configurations and electrical needs. Many card-lock facilities in Minnesota already have systems that shut down the flow of product or are safe suction piping. Based on staff experience, the MPCA estimates there are approximately 200 card-lock facilities in the state and that less than 15% of existing card-lock facilities will be affected by this new requirement.

- 12) Record keeping requirements. Owners and operators are now required to retain leak detection and system maintenance records for five years rather than the previous requirement of ten years. Owners and operators will incur less expense to store and maintain records by 50%.

Overall, the most likely estimated costs for the first year of compliance for owners and operators of regulated UST systems is estimated at \$46 (small facility), \$138 (medium facility), or \$138 (large facility). The cost is based on 20% of the total costs listed in SONAR Attachment 6.

The least likely estimated costs for the first year of compliance for owners and operators associated with antisiphon devices and line leak detectors for card-lock facilities that must be immediately installed is estimated at \$4,400 (small facility) and \$11,200 (medium facility). No large facilities are known need this requirement at this time. The Agency believes that these costs are less likely and that less than 5% of the sites (205 total sites based on approximately 4,100 federally regulated sites in MN) will be affected by these requirements and potential costs. See SONAR Attachment 6 for further details.

Optional costs the owners and operators may incur the first year of regulation are related to obtaining "agency-approved tester" status or the requirement to install underdispenser containment when only replacing dispensing islands. The costs to obtain "agency-approved tester" status is not a requirement and is optional for owner/operators to obtain if they so choose. The costs for dispenser sumps when replacing islands ONLY will be incurred if the owner operators performs the island replacement and this requirement is triggered. The proposed regulations do not require island replacement. Owners and operators can replace islands as they so choose, thus requiring under dispenser containment. If owners and operators choose to pursue both scenarios described above, the cost are estimated to be \$9,250 (small facility), \$21,250 (medium facility), and \$23,250 (large facility). It is reasonable to estimate that less than 5% of the sites (225 total sites based on approximately 4,100 federally regulated sites in MN) will be affected by these requirements and potential costs. See SONAR Attachment 6 for further details.

- b) Manufacturers of UST systems.

Other than minor administrative costs to understand the new requirements, there are no anticipated costs to UST manufacturers.

c) Installers of UST systems.

There are no anticipated costs to installers, other than administrative costs to understand the new requirement and procedures.

d) Contractors and consultants who provide UST-related maintenance, operational testing and services. Certified contractors, testing firms and consultants may incur minor administrative costs in adopting and offering new procedures for inspections, testing, and maintenance. Other associated costs may be to comply with the agency-approved tester requirements by completing manufacturer certifications for new testing equipment, and certifications of UST system equipment, as applicable. MPCA review of manufacturer certification revealed minor to no costs with obtaining these certifications. These minor additional costs will be offset by the sale of services they provide to help owners and operators comply with the new rules.

The Agency anticipates that there will be no added costs for comprehensive general liability insurance (insurance) for agency-approved testers. The MPCA estimates that two groups of people may seek agency-approved tester status, MN UST certified contractors and third-party testers.

The first group seeking agency-approved tester status would be MN UST certified contractors that already perform installations and repair. The scope of work projects generally requires working with large vehicles, excavations, and other equipment that has the potential for catastrophic losses to property, physical injury, and releases to the environment. As such, insurance is already required to be a certified contractor and no additional insurance costs would be incurred to be an agency-approved tester. Contractors already carry liability insurance to protect their business assets and the minimum coverage is usually no less than \$1,000,000. While the proposed rules do not require insurance coverage for a certified contractor, the coverage is already in place for certified contractors.

The second group seeking agency-approved tester status are third-party independent testers. The Agency expects that this group of people already carries the proposed liability coverage. The MPCA contacted a representative of this group and determined that the \$1,000,000 insurance coverage was already carried as a matter of standard business practice. Thus, the Agency is not adding additional costs by including a requirement that insurance be carried. Owners and operators of UST systems risk potential catastrophic losses with any work done onsite. As such, they are not likely to allow contractors onsite without adequate insurance coverage. As discussed, the Agency believes the \$1,000,000 insurance coverage proposed under part 7150.0250, subp. 6, item A, subitem (3), unit (b) is reasonable because it reflects the industrywide practice of minimum coverage amongst general contractors. Thus, the requirement adds no additional cost.

e) State and federal government agencies which regulate or are otherwise involved with UST systems.

See section 6.A.2.

f) Citizens of the State of Minnesota

Costs to petroleum marketers and owner/operators of UST systems may be passed through to consumers in the form of higher gas prices at the pump, or other goods and services offered by the owner/operators. These increases would be negligible and would be offset by less frequent imposition of the \$0.02 per gallon distribution fee used to fund the state Petrofund, due to lower release-site cleanup costs.

6. **The probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals.**
- Owners and operators of regulated UST systems. Tank owners and operators who do not conduct the additional inspections and testing as described in the proposed rule will be subject to an increased risk of equipment failure going unnoticed for potentially prolonged periods of time. Malfunctioning equipment going unnoticed will increase the potential for releases or for releases to go uncontained. The owners and operators may bear an increased cost of remediation costs not covered by the State Petrofund because the release may have been prevented or minimized if the malfunctioning equipment would have been detected at an earlier time.
 - Manufacturers of UST systems. No impacts.
 - Installers of UST systems. No impacts.
 - Contractors and consultants who provide UST related maintenance and operational services. No impacts.
 - State and federal government agencies which regulate or are otherwise involved with UST systems. More MPCA staff time may be spent for enforcement due to lack of repairs and maintenance activities to prevent releases from UST systems. If the rules are not adopted, EPA still retains jurisdiction and enforcement authority over owners and operators in Minnesota under 40 CFR pt. 280. There will be continued uncertainty of interpretation and application of these rules because state and federal government agencies will have jurisdiction enforcing different rules. Furthermore, if the proposed rules are not adopted, the MPCA may lose federal funding from EPA for its UST program, reducing its capacity to inspect sites and prevent releases.
 - Citizens of the state of Minnesota. If the proposed rules are not adopted, human health and the environment may be negatively impacted due to malfunctioning equipment and increased releases. Furthermore, the state may not have an EPA authorized program and federal funding may be decreased. This would affect citizens because more state funding would be necessary in order to operate the current UST program in Minnesota. Also, gas costs at the pump may increase due to increased Petrofund use to cover increasing remediation costs due to more tank system failures.
7. **An assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference.**
- An assessment of the differences between the proposed Minnesota rule language and the existing federal regulations was conducted. Please see SONAR Attachment 4 for a complete discussion.
8. **An assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule.**

Minn. Stat. § 14.131 defines “cumulative effect” as “the impact that results from incremental impact of the proposed rule in addition to the other rules, regardless of what state or federal agency has adopted the other rules. Cumulative effects can result from individually minor but collectively significant rules adopted over a period of time.”

Minn. Stat. § 116.49, subd. 1, requires the MPCA to “adopt rules applicable to all owners and operators of UST to protect human health and the environment.” Section 4 of this SONAR outlines the Agency’s statutory authority and section 2 outlines historical rulemaking actions. Additionally, the Agency must comply with the rulemaking administrative procedures under Minn. Stat. ch. 14.

EPA regulations set the minimum requirements for federally-regulated tanks throughout the United States. By adopting rules that meet the federal minimum and obtaining State Program Approval from EPA for Minnesota's UST program, Chapter 7150 becomes the governing set of rules for UST systems in Minnesota. This avoids duplication of regulation by MPCA and EPA.

The MSFC also has rules that pertain to UST systems in Minnesota. The standards in the fire code have stringent equipment and installation standards. The fire code regulations are incorporated by reference in Chapter 7150. MSFC regulations do not conflict with federal rules.

There are no other known state or federal regulations governing UST systems in Minnesota. Local government units (LGUs) or local fire officials may impose more stringent requirements than Minn. R. ch. 7150, if they so choose. In fact, some LGUs have established requirements for temporary and permanent closure requirements that are more stringent than ch. 7150. Those requirements can be no less stringent than the state requirements.

Cumulatively, USTs have become increasingly regulated over the last 30 years to prevent major releases to the environment that lead to human health and environmental effects, as well as significant cleanup costs. The history of releases and subsequent cleanup efforts have led the federal and state government to recognize the benefits of preventative measures. The proposed rules maintain most of the existing requirements and impose a small number of improvements in UST systems to reduce the risk of releases to the environment. The proposed rules avoid potentially greater cumulative effects that would result if the MPCA took no action to revise the rules – such inaction would result in separate MPCA and EPA programs, which could lead to confusion over applicable standards. The proposed rules also incorporate the concurrent fire code rules to avoid duplication or increased regulatory burden.

Overall, the proposed amendments to Minn. R. ch. 7150 meet the minimum equivalency requirements for continued federal program approval, comport with existing MSFC requirements, and comply with all applicable statutory requirements.

B. Minnesota Statute § 116.07, Subdivision 2

Minn. Stat. § 116.07 subd. 2 requires that for proposed rules adopting air quality, solid waste, hazardous waste, or water quality standards, the SONAR must include an assessment of any differences between the proposed rule and existing federal standards adopted under the Clean Air Act, title 42, section 7412(b)(2); Clean Water Act, United States Code, title 33, sections 1312(a) and 1313(c)(4); and the Resource Conservation and Recovery Act, United States Code, title 42, section 6921(b)(1); similar standards in states bordering Minnesota; and similar standards in states within the US Environmental Protection Agency (EPA) Region 5; and a specific analysis of the need and reasonableness of each difference.

At a minimum, each state authorized by EPA to administer an UST program must establish state requirements that are equivalent to EPA regulations; states have the option of establishing more stringent requirements.

An assessment of the federal regulations along with states that are part of Region 5 EPA (Wisconsin, Indiana, Ohio, Illinois, and Michigan) and neighboring states (South Dakota, North Dakota, and Iowa) was performed to determine the differences between the MPCA proposed rules and other state rules. At the time this SONAR was created, all states listed above are pursuing rulemaking activities similar to the MPCA to adopt rules that are no less stringent than the federal requirements. At this time, rulemaking in those states (other than Ohio, described below) is too early in the process to determine whether other states will choose to apply requirements that are more stringent because final rule

language of their rules have not yet been adopted. Where the Agency establishes more stringent requirements, the need and reasonableness is established in section 5.B. of the SONAR.

Ohio has already adopted final rule language that is no less stringent than the 2015 revisions to 40 CFR pt. 280. A comparative analysis in SONAR Attachment 4 identifies the differences between Agency proposed rules, federal rules, and the State of Ohio Rules.

It is noteworthy that many of the states in Region 5 EPA and surrounding states currently charge administrative fees to owner and operators to implement their UST program. Fees such as registration fees, permit fees, inspection fees, re-inspection fees range from \$35 to \$100 per tank, or hourly rates of up to \$60/hr. The fees may be annual registration fees or permit fees for work performed on systems within their jurisdiction. The MPCA does not currently have any one time, annual, or permit fees imposed on owner or operators in Minnesota.

C. Environmental justice policy

The MPCA's [*Environmental Justice Framework 2015 – 2018 \(EJ Framework\)*](#), on page 3, describes the MPCA's history with environmental justice (EJ):

"Following action on the national level, the MPCA began formally working on environmental justice in the mid-1990s. Presidential Executive Order 12898, issued in 1994, directed each federal agency to make "achieving environmental justice part of its mission by identifying and addressing disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority and low-income populations."

The Presidential Executive Order built on Title VI of the Civil Rights Act of 1964. Title VI prohibits discrimination based on race, color, or national origin. As a recipient of federal funding, the MPCA is required to comply with Title VI of the Civil Rights Act.

The MPCA developed a policy for environmental justice that closely mirrors the EPA policy. The MPCA's policy, last revised in 2012, states:

"The Minnesota Pollution Control Agency will, within its authority, strive for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, and commercial operations or policies.

Meaningful involvement means that:

- *People have an opportunity to participate in decisions about activities that may affect their environment and/or health.*
- *The public's contribution can influence the regulatory agency's decision.*
- *Their concerns will be considered in the decision making process.*
- *The decision-makers seek out and facilitate the involvement of those potentially affected.*

The above concept is embraced as the understanding of environmental justice by the MPCA."

As explained in the EJ Framework on page 11, when undertaking rulemaking the MPCA considers how the impacts of a proposed rule are distributed across Minnesota and works to actively engage all

Minnesotans in rule development. This review of the impacts and meaningful involvement are provided in this section of the SONAR for ease of review with the rest of the Regulatory Analysis, though these analyses are not required under the Administrative Procedures Act (Minn. Stat. ch. 14).

Equity Analysis

To implement the “fair treatment” aspect of the EJ Framework policy, the MPCA would generally complete an equity analysis considering and documenting how the proposed rule may affect low-income populations and communities of color. The MPCA does not expect the proposed rules to have any negative environmental consequences; as stated previously, the intent of the rules is to update existing requirements by conforming to applicable federal requirements with additional added stringency with MN-only requirements.

EPA conducted a screening analysis as part of its [Assessment of the Potential Costs, Benefits, and Other Impacts Of The Final Revisions To EPA’s Underground Storage Tank Regulation](#). See SONAR Attachment 2. To retain state program approval status, the MPCA must, at a minimum, adopt state rules that are equivalent to federal rules. All states have the option to establish requirements that exceed EPA rules. MPCA has chosen to adopt rules that are equivalent to federal rules in most instances but more stringent than federal rules in others. The reasonableness of those stricter requirements is discussed in section 5 of the SONAR. The Agency agrees with EPA’s observation from the assessment that increasing the stringency of requirements reduces the number and size of releases (see chapter 5 of the EPA assessment). By establishing additional, stricter requirements, the MPCA is further reducing the number and size of releases.

The proposed revisions simply incorporate federal requirements into state rules with minor changes designed to make the rule more protective for all Minnesotans. The EPA conducted the above assessment in 2015 and the MPCA accepts the results. See SONAR Attachment 2.

Therefore, the Agency believes that no further analysis is required. However, the Agency notes that the stricter requirements established for the areas listed below will generally benefit areas of concern for low-income communities, people of color, and Native American lands.

Table 4: Benefits for low-income communities, people of color, and Native American lands.

Requirements beyond EPA:	Expected added benefits:
<ul style="list-style-type: none"> • Introduction of potentially harmful substances 	<ul style="list-style-type: none"> • Minimize risk of releases of non-regulated substances that may cause environmental harm if released in large quantities.
<ul style="list-style-type: none"> • Requirement of double-poppet shear valves for new and replacement shear valves 	<ul style="list-style-type: none"> • Minimize risk of releases and added safety benefits to the protect human health and the environment.
<ul style="list-style-type: none"> • Submersible pump sump requirements 	<ul style="list-style-type: none"> • Minimize releases to the environment by containing petroleum leaks prior to entering the soil.
<ul style="list-style-type: none"> • Underdispenser sump requirements 	<ul style="list-style-type: none"> • Minimize releases to the environment by containing petroleum leaks prior to entering the soil.
<ul style="list-style-type: none"> • Emergency stops 	<ul style="list-style-type: none"> • Minimize risk of a release and added safety benefits in emergency situations to protect human health and the environment.
<ul style="list-style-type: none"> • Agency-approved tester requirements 	<ul style="list-style-type: none"> • Testing by trained and experienced individuals to ensure tank systems are operating properly consistent with industry standards throughout the state will minimize the risk of a release and protect human health.

Requirements beyond EPA:	Expected added benefits:
<ul style="list-style-type: none"> • 60-day timeline for cathodic protection repairs 	<ul style="list-style-type: none"> • Cathodic protection systems repaired in a timely manner will ensure tank system integrity and minimize releases.
<ul style="list-style-type: none"> • Conditions under which tank system replacement or permanent closure are required 	<ul style="list-style-type: none"> • Clarifying circumstances in which substandard tank system equipment must be replaced or taken out of service will minimize releases to the environment and protect human health.
<ul style="list-style-type: none"> • Antisiphon device requirements 	<ul style="list-style-type: none"> • Minimize the risk of catastrophic releases to the environment by preventing tanks from siphoning when the piping is positioned lower than the top of the tank.
<ul style="list-style-type: none"> • Positive shutoff for line-leak detection at unattended card-lock facilities 	<ul style="list-style-type: none"> • Minimize catastrophic releases to the environment from pressurized pipe where an attendant is not readily available to respond alarms or an unusual operating conditions.

Meaningful Involvement

In order to meet the directive to strive for “meaningful involvement,” the MPCA works to seek out and facilitate the involvement of those potentially affected by the proposed rule, particularly those populations that have historically not been as engaged in the public process. Because the proposed revisions (1) amend existing rules to reflect new federal rules that exceed existing state rules in stringency, and (2) amend existing rules to establish additional requirements that go beyond federal rules as discussed in the table above, the MPCA does not expect the proposed rules to have any negative environmental consequences. The proposed rules will apply statewide, with no unique effect on any one community over another. It is possible that gas stations may experience additional costs based on MN-only requirements. Required MN-only costs are minimal and can be found in section 6.A.(7) of the SONAR. Thus, no additional outreach is necessary.

As described in Section 3, Public participation and stakeholder involvement, there has been stakeholder involvement during the development of the proposed rules. While there was no specific plan developed to reach out to low-income populations and communities of color, we believe our stakeholder outreach has ensured that most affected communities are aware of the rule. Additionally, during the formal public comment period, all interested and affected parties may submit comments on the proposed rulemaking.

7. Notice plan

Minn. Stat. § 14.131 requires that an Agency include in its SONAR a description of its efforts to provide additional notification to persons or classes of persons who may be affected by the proposed rule, or explain why these efforts were not made.

The MPCA utilizes a self-subscription service for interested and affected parties to register to receive rule related notices. Request for U.S. Mail service is available. Rule projects are listed on the Agency's Public Rulemaking docket. Once projects are active (i.e., no longer listed as a future project), a self-subscription list for that specific rule is established and an electronic notice is sent to individuals who have subscribed to receive notice for all rulemakings. The Agency also purchases the League of Minnesota Cities' email address list on a yearly basis. The list is used to reach out to new government officials that may not be familiar with the electronic delivery system used by the MPCA to send rule notices, public notices and other information. Examples of the government officials are: MN Cities, County Chairs, Zoning and Planning, Commissioners and Solid Waste Officers. An electronic message is sent inviting individuals to subscribe to topics that interest them. Listed topics include rulemaking projects. The MPCA sent an electronic message to the government officials on March 28, 2016.

A. Notice:

On November 9, 2015, the MPCA published notice requesting comments on planned rule amendments to *Minn. R. ch. 7150*. The notice was placed on the MPCA's Public Notice webpage and the UST Update rule webpage at <https://www.pca.state.mn.us/waste/underground-storage-tanks-ust-update-rulemaking>.

1. Minn. Stat. § 14.14, subd. 1a. On the date the Notice is published in the State Register, the MPCA intends to send an electronic notice with a hyperlink to electronic copies of the Notice, SONAR, and proposed rule amendments to all parties who have registered with the MPCA for the purpose of receiving notice of rule proceedings. Parties within this group that have requested non-electronic notice will receive copies of the Notice and the proposed rule amendments in hard copy via U.S. Mail.
2. Minn. Stat. § 14.116. The MPCA intends to send a cover letter with a hyperlink to electronic copies of the Notice, SONAR, and the proposed rule amendments to the chairs and ranking minority party members of the legislative policy and budget committees with jurisdiction over the subject matter of the proposed rule amendments, as required by Minn. Stat. § 14.116. The timing of this notice will occur at least 33 days before the end of the comment period because it will be delivered via U.S. Mail. This statute also states that if the mailing of the notice is within two years of the effective date of the law granting the agency authority to adopt the proposed rules, the agency must make reasonable efforts to send a copy of the notice and SONAR to all sitting House and Senate legislators who were chief authors of the bill granting the rulemaking. Notice to chief authors does not apply because no bill was authored within the past two years granting rulemaking authority.
3. Minn. Stat. §14.111. If the rule affects agricultural land, Minn. Stat. § 14.111 requires an agency to provide a copy of the proposed rule changes to the Commissioner of Agriculture no later than 30 days before publication of the proposed rule in the *State Register*.

This rule is expected to have a minor impact agricultural land or farming operations.

As requested, the rule changes will be submitted via inter-office mail with a cover letter notifying the MDA of the changes. The following individuals will receive the information:

- David J. Frederickson, Commissioner
 - Matthew Wohlman, Deputy Commissioner
 - Joshua Stamper, Division Director, Pesticide and Fertilizer Management Division
 - Paul Hugunin, Division Director, Agricultural Marketing and Development Division
 - Dan Stoddard, Assistant Division Director, Pesticide and Fertilizer Management Division
 - Andrea Vaubel, Assistant Commissioner
 - Susan Stokes, Assistant Commissioner
 - Doug Spanier, Department Counsel for Agriculture
4. Minn. Stat. § 115.44, subd. 7. Under Minn. Stat. § 115.44, subd. 7, the MPCA is required to send notice to the governing body of each municipality touching the waters for which standards (authorized under Minn. Stat. § 115.44) are sought to be adopted. The proposed amendments do not involve standards authorized under Minn. Stat. § 115.44.
 5. Minn. Stat. § 116.07, subd. 7(i). Under Minn. Stat. § 116.07, subd. 7(i), the MPCA is required to send notice to the members of legislative policy and finance committees with jurisdiction over agriculture and the environment before final adoption of any new rules or amendments authorized under Minn. Stat. § 116.07, subd. 7. The proposed amendments do not involve new rules or amendments authorized under Minn. Stat. § 116.07, subd. 7.

B. Additional Notice:

1. The MPCA intends to send an electronic notice with a hyperlink to electronic copies of the Notice, SONAR, and the proposed rule amendments to the following organizations:

Table 5: Additional notice contacts.

Name	Contact	Email
Association of MN Counties	Jennifer Berquam, Environment & Natural Resources Policy Analyst	jberquam@mncounties.org
Association of Metropolitan Municipalities	Charlie Vander Aarde, Government Relations Specialist	Charlie@MetroCitiesMN.org
League of MN Cities	Craig Johnson, Intergovernmental Relations Representative	cjohnson@lmc.org
Metropolitan Council	Leisa Thompson, MCES General Manager	leisa.thompson@metc.state.mn.us
Metropolitan Airports Commission	Mike Harder, Environmental Compliance Administrator	Mike.Harder@mspmac.org
Minnesota Service Station & Convenience Store Association (MSSA)	Lance Klatt, Executive Director	lance@mnssa.com

Name	Contact	Email
Minnesota Petroleum Marketers Association (MPMA)	Kevin Thoma, Executive Director	kthoma@mnmaonline.com
MN Association of Townships (MAT)	Gary Pederson, Executive Director	gpedersen@mntownships.org
MN Chamber of Commerce	Tony Kwilas, Environmental Policy Director	tkwilas@mnchamber.com
MN City/County Management Association	Bart Fischer, President (Oakdale City Administrator)	bart.fischer@ci.oakdale.mn.us

2. The MPCA intends to send an electronic notice with a hyperlink to electronic copies of the Notice, SONAR and the proposed rule amendments to the tribal contacts expressing an interest in receiving notices for land-related rulemaking. The Air and Water Tribal Contacts list is available at <https://www.pca.state.mn.us/sites/default/files/p-gen5-25.pdf>. Liaison tribal contacts listed on the last page of the document will be excluded.
3. The MPCA intends to send an electronic notice with a hyperlink to electronic copies of the Notice, SONAR and the proposed rule amendments to the following GovDelivery email lists:
 - Tank Compliance – List of owners and operators of tank systems (UST and AST) in Minnesota.
 - UST Contractors – List of contractors who work with tank systems (UST and AST).

In addition, a copy of the Notice, proposed rule amendments and SONAR will be posted on the MPCA's Public Notice webpage: <https://www.pca.state.mn.us/public-notices>

Pursuant to Minn. Stat. § 14.14, subd. 1a, the MPCA believes its regular means of notice, including publication in the *State Register* and on the MPCA's Public Notice webpage, will provide adequate notice of this rulemaking to persons interested in or regulated by these rules.

8. Performance-based rules

Minn. Stat. §14.002 requires state agencies, whenever feasible, to develop rules that are not overly prescriptive and inflexible, and rules that emphasize achievement of the MPCA's regulatory objectives while allowing maximum flexibility to regulated parties and to the MPCA in meeting those objectives.

The primary objective of UST rules are to prevent releases of regulated substances to the environment. Because UST system equipment is buried and cannot be seen, compliance requirements heavily rely upon testing and inspection and result in prescriptive requirements. The proposed revisions are geared towards primarily meeting the federal requirements of 40 CFR pt. 280. Therefore, the use of a performance-based approach does not readily apply. To the extent that the federal requirements allow flexibility, the proposed rules do as well – for example, owners/operators have options for how to measure for leaks; owners/operators have flexibility to determine how to investigate and remedy unusual operating positions; and the rules do not prescribe particular products or brands, so long as the containment systems meet the standards in rule. However, the proposed rules also contain the following MN-only requirements that are discussed in section 1.A. of the SONAR. The following bullets summarize the evolution of the indicated requirements following feedback from the advisory committee on the initial concept to provide flexibility.

- The introduction of the term “other potentially harmful substances” for USTs. The Agency rules team initially introduced the term “other regulated substances” to govern substances that may pollute waters of the state, excluding regulated substances that are defined under part 7150.0030, subp. 32a, items A and B. In working with the advisory committee, the Agency determined that it was not necessary to govern such substances to the same degree as a regulated substance as defined under part 7150.0030, subp. 40. As an example, the Agency considered the nonpetroleum substance magnesium chloride that does not meet the definition of a regulated substance as defined under part 7150.0030, subp. 40. The storage of magnesium chloride would not require some standards for regulated substances (tank-leak detection, line-leak detection, cathodic protection, etc.), but it would require compatibility because the MPCA wants to ensure that all substances stored in USTs are compatible with the storage tank. The Agency agreed with the advisory committee that a more appropriate term was necessary to regulate substances that do not meet the part 7150.0030, subp. 40 definition. As initially introduced “other regulated substances” was a confusing term because regulating “other regulated substances” appeared as a circular reference. As a result of feedback from the advisory committee, the term “other regulated substances” evolved to “other potentially harmful substances” to reflect the need for regulation focused on compatibility and not regulation focused to the degree of a regulated substance. The proposed rule is more flexible for owners of USTs with other potentially harmful substances because fewer prescriptive requirements apply, while still protecting human health and the environment.
- Clarification of retrofit tank system requirements. The term “retrofit tank” was added to the rules to help separate internal linings that were used for corrosion protection in the 1998 upgrade requirements from the double-walled linings that are considered a new UST when completed. The MPCA also clarified whether retrofit tanks were self-structural (stand-alone) or co-structural (needed the existing tank for support). The flexibility in the proposed requirement is that the proposed rule allows a retrofit tank to be considered a brand new tank, which decreases costs for owners and operators while being protective of human health and the environment; owners and operators must still ensure that the old tank is permanently closed and closure complies with part 7150.0250, subp. 4.

- Submersible pump sump requirements. Submersible pump sump requirements have been in the MPCA's UST rule since the 2007 rulemaking update. The advisory committee discussed needed clarification to the rule; after considering the feedback, the MPCA clarified the requirements for sumps that were installed before and after December 22, 2007. Thus, tank systems with sumps installed before December 22, 2007, that do not conduct interstitial monitoring are exempt from conducting the sump testing required under the EPA rules. Tank systems with sumps installed after December 22, 2007, are required to conduct the sump testing. The flexibility in the Agency's revision comes from the allowed exclusion to complying with EPA rules for tank systems with sumps installed before December 22, 2007, that do not conduct interstitial monitoring.
- Underdispenser sump requirements. Underdispenser sump requirements have been in the MPCA's UST rule since the 2007 rulemaking update. The advisory committee discussed some needed clarification to the rule; after considering the feedback, the MPCA clarified the requirements for sumps that were installed before and after December 22, 2007. Tank systems with sumps installed before December 22, 2007, that do not conduct interstitial monitoring are not required to conduct the sump testing required under the EPA rules. In cases where interstitial monitoring is being conducted on tank systems with sumps installed before and after December 22, 2007, owners and operators are required to conduct the sump testing required under the EPA rules. The flexibility in the Agency's revision comes from the Agency's attempt to address clarifications that regulated parties believe are needed to comply with the requirements.
- Emergency stops. The MPCA adopted the wording for emergency stops from the Minnesota State Fire Code. The flexibility in the proposed requirement is that the rules are no more prescriptive than the Minnesota State Fire Code.
- Agency-approved tester requirements. The factors the Agency considered, feedback the advisory committee provided, and the subsequent reevaluation with the concept of third-party testing is discussed in detail under the SONAR explanation of part 7150.0216, subp. 6, and applies to this discussion. The flexibility in the proposed requirement is that the proposed rule establishes an option for owners and operators to properly test their equipment or hire a third-party tester; owners and operators can test their own equipment provided that they are an agency-approved tester.
- Conditions where tank system replacement or permanent closure are required. The Agency discussed various scenarios with the advisory committee to clarify the conditions under which tank system repair, replacement, or permanent closure are required. The advisory committee members agreed with the proposed amendments to address the scenarios discussed. Thus, the Agency is proposing requirements to reflect three scenarios with tank systems; (1) conditions where repairs can be made; (2) conditions where replacement is required; and (3) conditions where permanent closure is required. The flexibility in the proposed requirements are that they address the concerns of industry for clarity, allow repairs at lower cost instead of replacement for some situations, and remain protective of human health and the environment.
- Retain alternative testing flexibility. The proposed rules retain the ability for owners and operators to request alternative testing on approval of the Commissioner.

The proposed rules do allow for flexibility for different monitoring methods and allows flexibility for owners and operators to investigate and address problems as they occur over time.

9. Consideration of economic factors

In exercising its powers, the MPCA is required by identical provisions in Minn. Stat. § 116.07, subdivision 6 and Minn. Stat. § 115.43, subdivision 1 to give due consideration to:

...the establishment, maintenance, operation and expansion of business, commerce, trade, industry, traffic, and other economic factors and other material matters affecting the feasibility and practicability of any proposed action, including, but not limited to, the burden on a municipality of any tax which may result there from, and shall take or provide for such action as may be reasonable, feasible, and practical under the circumstances...

As previously discussed, at a minimum, the MPCA needs to establish requirements that are equivalent to federal regulations. However, the Agency has flexibility with establishing any additional MN-only requirements. The Agency has already discussed the need and reasonableness for each of the MN-only requirement in section 5.B. of the SONAR and believes that the agency-approved tester option to reduce costs comply with this statutory requirement. In addition, the MPCA reviewed the economic burden anticipated for each group of affected parties in SONAR section 6.A. The MPCA determined that costs would be low for each affected group, and does not expect the rules to affect the feasibility of operating or expanding businesses.

10. Consult with Minnesota Management and Budget on local government impact

As required by Minn. Stat. § 14.131, the MPCA will consult with Minnesota Management and Budget (MMB). The Agency will do this by sending MMB copies of the documents that are sent to the Governor's office for review and approval on the same day the Agency sends them to the Governor's office. The Agency will do this before publishing the Dual Notice. The documents will include - the Governor's Office Proposed Rule, and SONAR Form, the proposed rules; and the SONAR. The MPCA will submit a copy of the cover correspondence and any response received from MMB to the Office of Administrative Hearing (OAH) at the hearing or with the documents it submits for Administrative Law Judge review.

11. Impact on local government ordinances and rules

Minn. Stat. § 14.128, subd. 1, requires an agency to determine whether a proposed rule will require a local government to adopt or amend any ordinances or other regulation in order to comply with the rule. Minn. Stat. § 116.50 preempts conflicting local ordinances and LGUs are not required to update their local ordinances as a result of this rulemaking. The MPCA has determined that the proposed amendments will not have any effect on local ordinances or regulations.

12. Costs of complying for small business or city

Minn. Stat. § 14.127, subds. 1 and 2 require an agency to *“determine if the cost of complying with a proposed rule in the first year after the rule takes effect will exceed \$25,000 for any one business that has less than 50 full-time employees, or any one statutory or home rule charter city that has less than ten full-time employees.”*

The proposed amendments incorporate new federal requirements into state requirements, make corrections to existing language for consistency with existing EPA requirements, relocate existing requirements to make it easier to understand applicable requirements and remove obsolete requirements. In determining the costs of complying for small businesses or a city, the MPCA excludes the costs of already existing requirements from its determination below. While the Agency provides the costs for complying with the federal requirements, those costs are not included in the costs of complying for small business or city because they are federally mandated requirements that all regulated parties must comply with. Costs related to Minnesota-only requirements are discussed in section 6.A.5. of the SONAR and summarized in SONAR Attachment 6. Small businesses or small cities are expected to incur costs only if they are an owner or operators of a UST. As shown in section 6.A., the estimated costs will not exceed the \$25,000 threshold for any business or city.

13. Authors, witnesses and SONAR attachments

A. Authors

- Zachary Klaus, MPCA. Mr. Klaus is the principal author of the SONAR and proposed rule language. Mr. Klaus will testify on the general need for and reasonableness of the proposed rules, as well as on the technical requirements listed in the rule.
- Jacob Mueller, MPCA. Mr. Mueller is a coauthor of the SONAR and proposed rule language. Mr. Mueller will testify on the general need for and reasonableness of the proposed rules, as well as on the technical requirements listed in the rule.
- Carey Mattison, MPCA. Carey Mattison is a coauthor of the SONAR and proposed rule language. Mr. Mattison will testify on the general need for and reasonableness of the proposed rules, as well as on the technical requirements listed in the rule.

B. Witnesses

The MPCA expects that the proposed amendments will be noncontroversial. In the event that a hearing is necessary, the MPCA anticipates having the listed authors testify as witnesses in support of the need for and reasonableness of the rules.

- Michael Schmidt, MPCA. Mr. Schmidt is an attorney in the Legal Services Unit at the MPCA and will introduce the required jurisdictional documents into the record.
- Yolanda Letnes, MPCA. Ms. Letnes is the project rule coordinator and will testify on any Minnesota Administrative Procedures Act process questions.
- Mr. Nathan Blasing, Industrial Division. Mr. Blasing will testify on the technical requirements listed in the rule.
- The three authors listed under item A will testify on questions that may come up regarding their areas of expertise.

C. SONAR attachments

1. List of SONAR references.
2. Assessment of the Potential Costs, Benefits, and Other Impacts of the Final Revisions to EPA's Underground Storage Tank Regulations, April 2015.
3. Overview: Chapter 7150 reorganization.
4. Comparison: Minnesota, EPA, and other states.
5. EPA 2015 FR final rule.
6. Added costs for proposed Minnesota-only costs table.
7. MN CP Manual.

14. Conclusion

In this SONAR, the MPCA has established the need for and the reasonableness of each of the proposed amendments to Minn. R. ch. 7150. The MPCA has provided the necessary notifications and in this SONAR documented its compliance with all applicable administrative rulemaking requirements of Minnesota statute and rules.

Based on the forgoing, the proposed amendments are both needed and reasonable.

Date

7/23/18


John Linc Stine, Commissioner
Minnesota Pollution Control Agency

Attachment 1.

List of SONAR references.

1. In the matter of the proposed Technical Standards for Owners and Operators of Underground Storage Tanks, Minnesota Rules Chapter 7150. SONAR, signed January 10, 1991. 16 Minn. Reg. 59 (July 8, 1991).
2. Proposed Amendment to Rules Governing Permits and Certification, Minnesota Rules Chapter 7001, Aboveground Storage of Liquid Substances, Minnesota Rules Chapter 7151 and Standards of Performance for Underground Storage Tanks, Minnesota Rules Chapter 7150. SONAR, signed March 31, 2000. 25 Minn. Reg. 556 (August 21, 2000).
3. Proposed Amendments to Rules Governing the Underground Storage Tanks (UST) Program – Minn. R. ch. 7150. SONAR, signed July 24, 2007. 32 Minn. Reg. 1751 (March 17, 2008).
4. Proposed Amendment to Rule Governing the Underground Storage Tanks (UST) Program, Minn. R. ch. 7150. SONAR, signed July 13, 2009. 34 Minn. Reg. 1610 (July 16, 2011).

Attachment 2.

The document pictured below is 167 pages and available at:

<https://www.epa.gov/sites/production/files/2015-07/documents/regs2015-ria.pdf>

**Assessment Of The Potential Costs, Benefits, And Other Impacts
Of The Final Revisions To
EPA's Underground Storage Tank Regulations**

Prepared for:

Release Prevention Division, Office of Underground Storage Tanks
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Prepared by:

Industrial Economics, Incorporated
2067 Massachusetts Avenue
Cambridge, MA 02140
617/354-0074

April 2015

Attachment 2 appendices.

The document pictured below is 227 pages and available at:

<https://www.regulations.gov/document?D=EPA-HQ-UST-2011-0301-0473>

The document contains the full appendices to the Assessment Of The Potential Costs, Benefits, And Other Impact Of The Final Revisions To EPA's Underground Storage Tank Regulations listed under Attachment 2.

Appendix A

Configuration and Cost Assumptions for Airport Hydrant Fuel Distribution Systems (AHFDSs) and UST Systems with Field-Constructed Tanks (FCTs)

Attachment 3

Overview: Chapter 7150 reorganization

CHAPTER 7150

MINNESOTA POLLUTION CONTROL AGENCY

UNDERGROUND STORAGE TANKS; PROGRAM

GENERALLY

7150.0010 APPLICABILITY.

7150.0020 [REPEALED, 32 SR 1751]

7150.0030 DEFINITIONS.

7150.0090 NOTIFICATION AND CERTIFICATION.

DESIGN AND CONSTRUCTION

7150.0100 PERFORMANCE STANDARDS FOR ~~UNDERGROUND STORAGE TANK~~ UST SYSTEMS.

7150.0110 [REPEALED, 32 SR 1751]

7150.0120 [REPEALED, 32 SR 1751]

7150.0200 [REPEALED, 32 SR 1751]

7150.0205 DESIGN AND CONSTRUCTION.

~~7150.0211 CLASS A, B, AND C OPERATOR REQUIREMENTS.~~

OPERATION AND MAINTENANCE

7150.0215 ~~OPERATION AND MAINTENANCE OF CATHODIC~~ OPERATING AND MAINTAINING CORROSION PROTECTION.

7150.0216 OPERATING, MAINTAINING, AND TESTING UST SYSTEMS.

7150.0220 [REPEALED, 32 SR 1751]

7150.0230 [REPEALED, 32 SR 1751]

7150.0240 [REPEALED, 32 SR 1751]

7150.0250 RESTORATION, CORRECTIVE ACTIONS, AND REQUIRED PERMANENT CLOSURE.

RELEASE DETECTION

7150.0300 RELEASE DETECTION.

7150.0310 [REPEALED, 32 SR 1751]

7150.0320 [REPEALED, 32 SR 1751]

7150.0330 METHODS OF RELEASE DETECTION FOR TANKS.

~~7150.0340 METHODS OF RELEASE DETECTION FOR PIPING.~~

REPORTING, INVESTIGATING, AND CONFIRMING RELEASES

7150.0345 REPORTING, INVESTIGATING, AND CONFIRMING RELEASES.

7150.0350 [REPEALED, 32 SR 1751]

~~OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS AND~~ UST SYSTEM

CLOSURE

7150.0400 TEMPORARY CLOSURE.

7150.0410 PERMANENT CLOSURE AND CHANGE IN STATUS TO STORAGE OF NONREGULATED SUBSTANCES.

~~7150.0420 SITE ASSESSMENT.~~

7150.0430 ~~PREVIOUSLY CLOSED UNDERGROUND STORAGE TANK~~ UST SYSTEMS.

7150.0440 [REPEALED, 32 SR 1751]

OPERATOR REQUIREMENTS, REPORTING, AND RECORD KEEPING

7150.0445 CLASS A, B, AND C OPERATOR REQUIREMENTS.

7150.0450 REPORTING AND RECORD KEEPING.

7150.0451 UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS AND AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS.

7150.0500 INCORPORATION BY REFERENCE.

1. MPCA is reordering the chapter parts to group similar topics together.
2. MPCA is creating sections on REPORTING, INVESTIGATING, AND CONFIRMING RELEASES and OPERATOR REQUIREMENTS, REPORTING, AND RECORDKEEPING.
3. MPCA is renumbering part 7150.0211 CLASS A, B, AND C OPERATOR REQUIREMENTS to part 7150.0445 and moved the requirements from the section under DESIGN AND CONSTRUCTION to the section for OPERATOR REQUIREMENTS, REPORTING, AND RECORDKEEPING.
4. MPCA moved part 7150.0420 SITE ASSESSMENT from the section under OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS AND CLOSURE to the new section on REPORTING, INVESTIGATING, AND CONFIRMING RELEASES and combined the requirements with new part 7150.0345 REPORTING, CONFIRMING, AND INVESTIGATING RELEASES.
5. MPCA created the new part 7150.0216 OPERATING, MAINTAINING, AND TESTING UST SYSTEMS, and part 7150.0250 RESTORATION, CORRECTIVE ACTIONS, AND REQUIRED PERMANENT CLOSURE. The Agency also moved operation and testing requirements from other areas of chapter 7150 and combined them under part 7150.0216. Similarly, the Agency also combined maintenance and repair requirements from other areas of chapter 7150 under part 7150.0250.
6. MPCA is also renaming part 7150.0215 to OPERATING AND MAINTAINING CORROSION PROTECTION to allow greater details relating to non-cathodic corrosion protection to be provided in this part.

Attachment 4

Comparison: EPA and other states.

MN proposed rule citation	Federal	Ohio
<p>1. Minn. R. 7150.0010 establishes the applicability of the rule and what underground storage tank systems are regulated.</p> <ul style="list-style-type: none">• 7150.0010, subp. 1• 7150.0010, subp. 2• 7150.0010, subp. 5• 7150.0010, subp. 6• 7150.0010, subp. 7	<p>In 2015, the United States Environmental Protection Agency (EPA) revised 40 CFR pt. 280. The revisions effectively removed the existing exemptions for certain underground storage tank (UST) systems such as emergency generator tanks, airport hydrant tanks, and field-constructed tanks. As part of the revisions, EPA established new requirements for these particular facilities.</p> <p>The Minnesota Pollution Control Agency (Agency) is proposing revisions to part 7150.0010, subps. 1,2, 5, and 6 that are equivalent to EPA rules.</p> <p>The proposed revision to part 7150.0010, subp. 7 is a state-only requirement that requires other potentially harmful substances to meet the compatibility requirements under proposed part 7150.0100, subp. 9. No other Minn. R. ch. 7150 requirements apply to tanks storing other potentially harmful substances. There is no federal counterpart for other potentially harmful substances. See the detailed explanation for part 7150.0010, subpart 7, in the Statement of Need and Reasonableness (SONAR).</p>	<p>See section 6.B. of the SONAR for a discussion of Wisconsin, Indiana, Illinois, Michigan, South Dakota, North Dakota, and Iowa.</p> <p>With the exception of fees and permits Ohio charges, Ohio adopted state regulations are equivalent to federal regulations. This means that Ohio regulations are no less stringent or more stringent than federal rules. Fees are discussed in section 6.B. of the SONAR.</p> <p>The comparison discussion under the column titled "Federal" is the same for this column, unless otherwise noted in this column.</p> <p>Currently, all other EPA region V and surrounding states are pursuing rulemaking. The Agency expects all EPA Region V and surrounding states to be no less stringent than 40 CFR pt. 280.</p>

MN proposed rule citation	Federal	Ohio
<p>2. Minn. R. 7150.0090 establishes the notification and certification requirements by owners and operators of underground storage tanks.</p> <ul style="list-style-type: none"> • 7150.0090, subp. 1 • 7150.0090, subp. 2 • 7150.0090, subp. 3 • 7150.0090, subp. 4 • 7150.0090, subp. 5 • 7150.0090, subp. 6 • 7150.0090, subp. 7 • 7150.0090, subp. 8 • 7150.0090, subp. 9 	<p>The proposed revisions to part 7150.0090, subp. 1, modify existing regulations specific to Minnesota and have no federal counterpart. These revisions were proposed to clarify which activities require a ten-day notification. The ten-day notification is needed to give inspectors an opportunity to conduct inspections on the work being done.</p> <p>The proposed amendments to part 7150.0090, subps. 2 to 7, do not establish any new standard or requirement. They are simple corrections and clarifications to existing state requirements and are equivalent to federal rules.</p> <p>The 2015 revisions to 40 CFR pt. 280 now requires a 30-day notification of compatibility for storing biofuels of greater than 10% ethanol, 20% biodiesel, or other regulated substances identified by the Agency. Proposed part 7150.0090, subp. 8 is a new requirement that is equivalent to this EPA rule.</p> <p>Part 7150.0090, subp. 9 is a proposed addition that requires the Agency to notify regulated parties if other regulated substances are identified in the future of needing to meet the requirements of subpart 8. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>3a. Minn. R. 7150.0100 establishes performance standards for underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0100, subp. 1 • 7150.0100, subp. 7 • 7150.0100, subp. 11 	<p>The proposed amendments do not establish any new standard or requirements. They are simple corrections and clarifications to existing state requirements to be equivalent with federal rule language. Codes of practice were also updated in these sections to be equivalent to federal requirements.</p>	<p>See the discussion under item 1.</p>
<p>3b. Minn. R. 7150.0100, subp. 9, establishes compatibility performance standards for underground storage tank systems.</p>	<p>The 2015 revisions to 40 CFR pt. 280 resulted in additional requirements for compatibility and for demonstrating compatibility. The proposed amendments to this subpart are equivalent to the new EPA rules with the following exception:</p> <ul style="list-style-type: none"> • The proposed amendments specifically address retrofit tank systems that are installed to meet compatibility requirements. Retrofit systems installed to meet compatibility requirements must meet part 7150.0205, subp. 1, by installing a retrofit system that is double walled and protected from corrosion. The EPA rules do not require retrofit systems for compatibility to be double walled. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p> <p>The proposed rule revisions are specific to Minnesota.</p>

MN proposed rule citation	Federal	Ohio
<p>3c. Minn. R. 7150.0100 establishes performance standards for underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0100, subp. 12a • 7150.0100, subp. 13 • 7150.0100, subp. 14 	<p>The proposed rule revisions in these subparts are to existing Agency rules. They are corrections and clarifications to existing state requirements. The rules are specific to Minnesota and have no specific federal counterpart, but follow industry standards outlined in the EPA rules. The requirements for subparts 12a and 14 do not change.</p> <p>The proposed rule language for subpart 13 now requires shear valves of double-poppet construction to be used for newly installed shear valves. This is more restrictive than federal requirements. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>4a. Minn. R. 7150.0205 establishes design and construction requirements of underground storage tank systems as it pertains to tanks and pipe.</p> <ul style="list-style-type: none"> • 7150.0205, subp. 1 • 7150.0205, subp. 2 • 7150.0205, subp. 3 • 7150.0205, subp. 4 	<p>The 2015 revisions to 40 CFR pt. 280 resulted in the requirement of all new tank systems (tanks and pipe) to be secondarily contained, designed to contain releases, and to conduct interstitial monitoring. Part 7150.0205 has had this requirement since December 22, 2007. The amendments to these sections are to simplify and clarify existing rule language, numbering, and update codes of practice to be equivalent with EPA rules with the following exceptions:</p> <ul style="list-style-type: none"> • Proposed rule revisions to part 7150.0205, subp. 1(B), address retrofit tank systems that are co-structural with the support provided by the host tank need to meet corrosion protection methods listed in this section. This is not addressed in the EPA rules but is established within industry standards. The Agency determined it was important to distinguish this in the proposed rules as these types of systems are becoming more popular and it should be clarified. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. • Proposed rule revision part 7150.0205, subp. 1(C)(3)(b), requires that if a tank is new, replaced or retrofitted and is secondarily contained, the piping must also be secondarily contained. This is not addressed in the EPA rules. This rule is already in effect under existing part 7150.0205, subp. 1(D)(3). The only addition to the existing rule is to include retrofit tanks. The Agency determined it was important to include retrofit tanks in the proposed rules as these types of systems are becoming more popular and requirements should be clarified. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>
<p>4b. Minn. R. 7150.0205, subp. 5, establishes design and construction requirements of underground storage tank systems as it pertains to spill and overfill protection.</p>	<p>The 2015 revisions to 40 CFR pt. 280 no longer allow ballfloat overfill protection systems to be replaced or installed on any new tank system. The new EPA rules also require that spill and overfill protection must be tested upon installation of the device. The proposed amendments to this section are equivalent to new EPA rules. The proposed amendments to this section also specify circumstances when a ballfloat overfill device cannot be used in existing systems. These circumstances are not addressed in EPA rules specifically but are addressed in industry standard publications that EPA references in the rule. The Agency determined it was important to include these circumstances in the proposed rules to clarify when ballfloats must be removed and replaced with a new overfill device. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
<p>4c. Minn. R. 7150.0205, subp. 6, establishes design and construction requirements of underground storage tank systems as it pertains to submersible pump sumps.</p>	<p>The proposed amendments in this section are to existing rules and have no federal counterpart. This existing rule section specifically states what is required for submersible pump sumps installed after December 22, 2007: it needs to be liquid tight in order to meet interstitial monitoring leak-detection requirements. The EPA rules limit the liquid-tight specifications to underdispenser sumps only. The Agency determined that it was just as important to require submersible pump sumps to be designed and installed liquid tight, just as it is for underdispenser sumps to be liquid tight for interstitial monitoring purposes. This also follows industry standards referenced in the rule and manufacturer's instructions. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p> <p>The proposed amendments also require submersible pumps installed prior to December 22, 2007, to be accessible for inspection and shall not be covered in soil or other obstacles that prevent visual inspections. This amendment is needed so visual inspections can be done to identify substandard equipment before leaks occur. This amendment also follows industry standards referenced in the rule and manufacturer's instructions. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p> <p>The proposed amendments also require the submersible pump sumps to be integrity tested upon installation. The EPA rules do not address sump testing upon installation except for sumps installed that are part of a double wall piping system required to do interstitial monitoring. The Agency decided to add this requirement to clarify that all sumps must be tested upon installation regardless of whether it is part of a double wall piping system. This amendment is consistent with industry standards referenced in the rule and manufacturer's installation instructions. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p> <p>The proposed rule revisions are specific to Minnesota.</p>

MN proposed rule citation	Federal	Ohio
<p>4d. Minn. R. 7150.0205, subp. 7, establishes design and construction requirements of underground storage tank systems as it pertains to dispenser sumps.</p>	<p>The 2015 revisions to 40 CFR pt. 280 now require underdispenser containment when dispensers and certain equipment are installed. The Agency has had this requirement in the rules since December 22, 2007. The proposed amendments to this subpart are to clarify and update existing rule language, numbering, and update codes of practice to be equivalent to the new EPA rules with the following exceptions:</p> <ul style="list-style-type: none"> • The proposed revisions require underdispenser sumps to be installed if concrete or base material under the dispenser is replaced or modified. The Agency has identified leaks from dispenser components to be problematic. Therefore, it was determined that if the concrete or base material was being replaced beneath the dispenser, it would be appropriate to install an underdispenser containment at that time. EPA rules do not require underdispenser containment to be installed if only concrete or base material is being replaced or modified. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. • The proposed amendments require that the underdispenser containment must be integrity tested upon installation. The EPA rules do not address sump testing upon installation except for sumps installed that are part of a double wall piping system required to do interstitial monitoring. The Agency decided to add this requirement to clarify that all sumps must be tested upon installation regardless whether it is part of a double-wall piping system. This amendment is consistent with industry standards referenced in the rule and manufacturer's installation instructions. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>
<p>4e. Minn. R. 7150.0205, subp. 8, establishes design and construction requirements of underground storage tank systems as it pertains to emergency stops.</p>	<p>The proposed rule revisions in this subpart are specific to Minnesota and have no federal counterpart. The Agency has elected to reference Minnesota State Fire Code requirements as it pertains to emergency stops at regulated facilities. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>The State of Ohio also requires emergency stops at UST locations where fuel dispensing occurs. They must be in a location where anyone can activate the emergency stops, if needed. This is equivalent to the proposed MN rules.</p>

MN proposed rule citation	Federal	Ohio
<p>5a. Minn. R. 7150.0215 establishes requirements for operation and maintenance of corrosion protection of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0215, subp. 1 • 7150.0215, subp. 2 • 7150.0215, subp. 3 • 7150.0215, subp. 5 	<p>The proposed amendments to part 7150.0215, subps. 1 to 3 and 5 do not establish any new standards or requirements. The amendments to these sections are to simplify and clarify existing state requirements and policies and update Codes of Practice to be equivalent with EPA rules with the following exception:</p> <ul style="list-style-type: none"> • Proposed amendments to part 7150.0215, subp. 2(C) and subp. 3(D) now clarify repairs to cathodic protections systems must be done within 60 days of the failing test. The Agency determined it was needed to give a timeline to assure systems are being repaired in a timely fashion. EPA rules do not give a specific timeline for repair of a system failure; they require the proper operation of the UST system. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>
<p>5b. Minn. R. 7150.0215, subp. 4, establishes requirements for internally lined tanks.</p>	<p>This subpart is an existing rule under Design and Construction requirements located in part 7150.0205, subp. 1(E). The amendment in this subpart simply moves this language to part 7150.0215, subp. 4. The proposed revisions do not establish new requirements. Changes to language and numbering were made to comply with grammar and formatting practices of the Minnesota Office of the Revisor of Statutes (MORS) and result in no change in the meaning of the previously existing requirements. Comparison with federal requirements is therefore not applicable. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
<p>6. Minn. R. 7150.0216 establishes requirements for operation, maintenance and testing of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0216, subp. 1 • 7150.0216, subp. 2 • 7150.0216, subp. 3 • 7150.0216, subp. 4 • 7150.0216, subp. 5 • 7150.0216, subp. 6 	<p>The 2015 revisions to 40 CFR pt. 280 require periodic inspections and testing of underground storage tank systems. The new federal requirements are described in 40 CFR §§ 280.35, 280.36, and 280.40. The Agency is proposing to create a new subpart under part 7150.0216 incorporating the new federal rules and applicable codes of practice. Part 7150.0216 Tank System Operation, Maintenance, and Testing is equivalent to new federal rules at 40 CFR §§ 280.35, 280.36, and 280.40.</p> <p>Specific differences between the proposed rules in this section and federal rules are as follows:</p> <ul style="list-style-type: none"> • 7150.0216, subp. 1(B) requires testing wastes must be disposed of properly and documented. 40 CFR pt. 280 does not address the issue of proper disposal of testing material, but the topic is addressed in applicable federal and state hazardous waste regulations. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. • 7150.0216, subp. 6 gives the criteria of an “agency-approved tester.” “Agency-approved tester” is referenced throughout Minn. R. ch. 7150 as a qualification to test and/or inspection of certain tank system components. EPA rules reference manufacturer’s specifications and PEI RP 1200 as acceptable methods to conduct the new testing/inspections; the specifications or methods require “qualified” people to do the work. Federal rules do not define who is “qualified.” The Agency decided to add “agency-approved tester” qualifications to assure testing is done correctly and consistently throughout the state by qualified people. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. • Existing part 7150.0300, subp. 7, currently requires monthly inspections on spill buckets, submersible pump sumps, and dispenser sumps. This requirement has now been proposed to be moved to part 7150.0216, subp. 2. The new federal rules now require monthly inspections on spill buckets and operability of release detection equipment and annual inspections of submersible pump sumps and dispenser sumps. Underground storage tank rules in MN have required monthly inspections on spill buckets, submersible pump sumps, and dispenser sumps since December 22, 2007; therefore, the Agency elected to keep this requirement. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>
<p>7a. Minn. R. 7150.0250 establishes requirements for restoration and corrective actions of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0250, subp. 1 • 7150.0250, subp. 4 	<p>The Agency is proposing to create a new- section under part 7150.0250 to address restoration and corrective actions. The proposed amendments in these subparts are new rules and have no federal counterpart. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p> <p>The proposed rules are specific to Minnesota and no state counterpart exists.</p>

MN proposed rule citation	Federal	Ohio
<p>7b. Minn. R. 7150.0250 establishes requirements for restoration and corrective actions of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0250, subp. 2 • 7150.0250, subp. 3 	<p>The Agency is proposing to create a new section under part 7150.0250 to address restoration and corrective actions.</p> <ul style="list-style-type: none"> • The Agency is proposing to move existing part 7150.0100, subp. 10, items A, C, D, E, and F (Repairs Allowed) to a new subpart under part 7150.0250, subp. 2 (Repairs). The proposed amendments to this subpart clarify and update existing rule language, numbering, and update codes of practice to be equivalent to federal revisions to 40 CFR § 280.33. • The Agency is proposing to move existing part 7150.0100, subp. 10(B) (Repairs Allowed) to a new subpart under part 7150.0250, subp. 3 (Replacement). The language in this subpart describes when particular tank system components need to be replaced rather than repaired. The proposed amendments to this subpart clarify and update existing rule language and number formatting. The proposed amendments to this subpart also reflect new federal rule language “when fifty percent or more of the piping is replaced, the entire piping system must be replaced” to be equivalent to the federal revision to 40 CFR pt. 280. Another proposed revision is to add language regarding pipe segments found to have degraded due to age, incompatibility, or poor installation practices need to be replaced which is not addressed in the federal rules. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>
<p>8a. Minn. R. 7150.0300, subp. 1, establishes general requirements for release detection for underground storage tank systems.</p>	<p>The proposed amendments to this subpart do not establish any new standard or requirement. The amendments to these sections are to simplify and clarify existing state requirements and update rule language to be equivalent with EPA rules.</p>	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
<p>8b. Minn. R. 7150.0300, subp. 5, establishes requirements for tank release detection for underground storage tank systems.</p>	<p>The proposed amendments to this subpart do not establish any new standard or requirement. The amendments to this subpart simplify and clarify existing state requirements and update rule language. The proposed amendments to this subpart include adding language that statistical inventory reconciliation is an acceptable form of tank leak detection and is considered equivalent with the 2015 revisions to 40 CFR pt. 280.</p> <p>The proposed amendments to this subpart also include repealing existing rule language about inventory control and manual tank gauging for tanks greater than 1,000 gallons. Manual tank gauging for tanks over 1,000 gallons and inventory control are only acceptable for ten years after the installation of the tank. Part 7150.0205, subp. 1, has required double-wall tanks and interstitial monitoring for tanks installed after December 22, 2007. Thus, these methods could only be used until December 22, 2017. Because the effective date of this proposed rule will be after December 22, 2017, the Agency decided to remove this rule language to simplify the rule. The Agency is not aware of any owners and operators of tanks in MN who are using manual tank gauging for tanks over 1,000 gallons or inventory control as the only form of leak detection and anticipates the proposed change will not affect any regulated tank in Minnesota. The 2015 revisions to 40 CFR pt. 280 still allow manual tank gauging on tanks over 1,000 gallons and inventory control in conjunction with tank tightness testing for ten years from the installation date. EPA rules have just started requiring double-wall tank installations with interstitial monitoring on systems installed after April 11, 2016. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>8c. Minn. R. 7150.0300, subp. 6, establishes requirements for piping release detection for underground storage tank systems.</p>	<p>The proposed amendments to this section clarify existing state requirements and update rule language to be equivalent with the 2015 EPA revisions to 40 CFR pt. 280. Subpart 6 previously conflicted with EPA rules. The Agency has revised the language such that automatic line leak detectors are required on all pressurized piping regardless of when the piping was installed or regardless of the use of other forms of leak detection on the piping. This rule language was amended to be equivalent with EPA rules.</p> <p>Proposed amendments to this section now require antisiphon devices on pressurized or suction piping systems where the piping is positioned beneath the top of the tank. EPA rules do not specifically require this, but this requirement is consistent with industry standards referenced in the rules. The Agency added this requirement in the proposed rules to make it clear when an antisiphon device is needed.</p>	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
<p>9. Minn. R. 7150.0330 establishes requirements for tank release detection methods for underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0330, subp. 1 • 7150.0330, subp. 2 • 7150.0330, subp. 3 • 7150.0330, subp. 4 • 7150.0330, subp. 5 • 7150.0330, subp. 6 • 7150.0330, subp. 7 	<p>The proposed amendments to this section are to clarify existing state requirements and update rule language to be equivalent with the 2015 rule revision to 40 CFR pt. 280. Rule language added to part 7150.0330, subps. 5 and 6a was proposed to be equivalent with EPA rules.</p> <p>The Agency is proposing to repeal part 7150.0330, subp. 2, regarding inventory control, and additional language in subp. 3 regarding manual tank gauging on tanks greater than 1,000 gallons. The reasoning to eliminate this language is described above in 8b. The removal of this language will simplify this section because these methods will no longer be permitted as the only form of tank leak detection.</p> <p>Proposed amendments to revise part 7150.0330, subp. 5, regarding automatic tank gauging include removing the requirement to conduct inventory control in conjunction with automatic tank gauging. EPA rules still require inventory control to be done in conjunction with automatic tank gauging, but EPA has accepted the Agency proposal to remove this requirement because tank bottoms are now required to be monitored monthly for water under part 7150.0216, subp. 2(A)(4). For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>10. Minn. R. 7150.0340 establishes requirements for pipe release detection methods for underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0340, subp. 1. • 7150.0340, subp. 2 • 7150.0340, subp. 3 • 7150.0340, subp. 4 	<p>The proposed amendments to this section are to clarify and simplify existing state requirements and update rule language to be equivalent with the 2015 revision to 40 CFR pt. 280. The changes in this category are made to ensure rule language and numbering adheres to grammar and formatting practices of the MORS.</p> <p>Proposed amendments under part 7150.0340, subps. 2(B) and (C) distinguish the line leak detection requirements between unattended facilities and attended facilities. Proposed amendments would require line leak detectors at unattended card-lock facilities to alert the operator to the presence of a leak by shutting off the flow of regulated substance. On the other hand, line leak detectors at attended facilities can notify owners and operators by restricting or shutting off the flow of a regulated substance or by triggering an alarm. Federal rules do not make the same distinction as the proposed rule. The Agency determined it was important to make this clarification because unattended card-lock facilities can be unattended for days before an alarm or restricted product flow would be noticed. However, stopping the flow of product flow can be done immediately by an automatic line leak detector when operating properly. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
<p>11a. Minn. R. 7150.0345 establishes requirements for release reporting, investigation and confirmation for underground storage tanks.</p> <ul style="list-style-type: none"> • 7150.0345, subp. 1. • 7150.0345, subp. 2 	<p>The 2015 revisions to 40 CFR pt. 280 changed release-reporting requirements and requirements relating to investigation and confirmation. The proposed language is a now in part 7150.0345. The proposed language in these subparts is equivalent with EPA rules with the following exception:</p> <ul style="list-style-type: none"> • 7150.0345, subp. 1, requires investigation of suspected releases to begin within 24 hours to be consistent with Minn. Stat. § 115.061. The EPA rules allow 7 days to begin an investigation or another timeframe specified by the implementing agency. The EPA has reviewed and accepted the 24-hour investigation timeline the Agency proposed in this section. 	<p>See the discussion under item 1.</p>
<p>11b. Minn. R. 7150.0345, subp. 3, establishes requirements for assessing a site at permanent closure or change in status for underground storage tanks.</p>	<p>The proposed amendments to this section are to clarify and update existing rule language, numbering, and update codes of practice to be equivalent to the 2015 revisions to 40 CFR pt. 280. This subpart is currently in the existing rules under part 7150.0420 and is being moved to this subpart for organizational purposes. This subpart now clarifies that site assessments are also required when piping systems are closed even if the tanks remain in place. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>12. Minn. R. 7150.0400 establishes requirements for temporary closure of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0400, subp. 1 • 7150.0400, subp. 2 • 7150.0400, subp. 3 • 7150.0400, subp. 4 • 7150.0400, subp. 5 	<p>The proposed amendments do not establish any new standard or requirement. The changes in this category are made to ensure rule language and numbering adheres to grammar and formatting practices of the MORS and result in no change in the meaning of the previously existing requirements. Comparison with federal requirements is therefore not applicable. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>13. Minn. R. 7150.0410 establishes requirements for permanent closure of underground storage tank systems.</p> <ul style="list-style-type: none"> • 7150.0400, subp. 1 • 7150.0400, subp. 2 • 7150.0400, subp. 3 • 7150.0400, subp. 4 • 7150.0400, subp. 5 	<p>The proposed amendments to this section are to clarify and update existing rule language, numbering, and update codes of practice to be equivalent to the 2015 revisions to 40 CFR pt. 280. This section now clarifies that piping systems that are permanently closed must also meet permanent closure requirements established in this part.</p> <ul style="list-style-type: none"> • 7150.0410, subp. 3(D) also requires that when a tank is lined or retrofitted according to proposed part 7150.0205, subp. 1, the original tank upon which the lining is secured is considered permanently closed and a site assessment must be done according to proposed part 7150.0345, subp. 3. Federal regulation does not address such systems in the permanent closure section. The Agency determined it was important to include retrofit tanks in the proposed rules as these types of systems are becoming more popular. For discussion of the need and reasonableness of this subpart, see SONAR section 5.B. 	<p>See the discussion under item 1.</p>

MN proposed rule citation	Federal	Ohio
14. Minn. R. 7150.0430 establishes requirements for previously closed underground storage tank systems.	The proposed amendments do not establish any new standard or requirement. The changes in this category are made to ensure rule language and numbering adheres to grammar and formatting practices of the MORS and result in no change in the meaning of the previously existing requirements, and is equivalent to the 2015 revisions to 40 CFR pt. 280.	See the discussion under item 1. .
15. Minn. R. 7150.0445 establishes requirements for Class A, B, and C operator requirements <ul style="list-style-type: none"> • 7150.0445, subp. 1 • 7150.0445, subp. 2 • 7150.0445, subp. 3 • 7150.0445, subp. 4 • 7150.0445, subp. 5 • 7150.0445, subp. 6 • 7150.0445, subp. 7 	The proposed amendments to this part are to clarify and update existing rule language, numbering, and update codes of practice to be equivalent to the 2015 revisions to 40 CFR pt. 280. The proposed amendments do not establish any new standard or requirement. These requirements currently exist under part 7150.0211 and are being moved to the newly proposed part 7150.0445 for organizational purposes.	See the discussion under item 1.
16. Minn. R. 7150.0450 establishes requirements for reporting and record keeping. <ul style="list-style-type: none"> • 7150.0450, subp. 1 • 7150.0450, subp. 2 	The proposed amendments do not establish any new standard or requirement. The changes in this category are made to ensure rule language and numbering adheres to grammar and formatting practices of the MORS and result in no change in the meaning of the previously existing requirements.	See the discussion under item 1.

MN proposed rule citation	Federal	Ohio
<p>16a. Minn. R. 7150.0450 establishes requirements for reporting and record keeping.</p> <ul style="list-style-type: none"> • 7150.0450, subp. 3 	<p>The proposed amendments to this part were made to ensure rule language and numbering adheres to the grammar and formatting practices of the MORS. The proposed addition of part 7150.0450, subp. 3(J) was also created to establish record retention requirements of five years for testing associated with the proposed part 7150.0216.</p> <p>Furthermore, the current requirement for record retention for leak detection under part 7150.0450, subp. 3(D)(2) is to retain records for ten years. The Agency is proposing to decrease the timeframe to keep records to five years.</p> <p>The 2015 revisions to 40 CFR pt. 280 contain the same record retention requirements as the proposed Agency rules, except that the Agency is more restrictive in the following areas:</p> <ul style="list-style-type: none"> • Monthly walkthrough inspection records must be kept one year according to EPA rules; however, this proposed rule requires a five-year record retention for those same records. • Spill, overfill, and containment sump testing and inspection records are required to be kept for three years according to EPA rules however, this proposed rule requires a five-year record retention for those same records. • Tank and piping leak detection testing results are required to be kept for one year according to EPA rules; however, this proposed rule requires a five-year record retention for those same records. • Annual leak detection equipment testing and inspections are required to be kept for three years according to EPA rules; however, this proposed rule requires a five-year record retention for those same records. <p>For discussion of the need and reasonableness of this subpart, see SONAR section 5.B.</p>	<p>See the discussion under item 1.</p>
<p>17. Minn. R. 7150.0451 establishes requirements for UST systems associated with field- constructed tanks and airport hydrant fuel distribution systems</p>	<p>The proposed addition of this part is equivalent to the 2015 revisions to 40 CFR pt. 280. These tanks were previously deferred and are now regulated under the federal requirements. The Agency incorporated 40 CFR pt. 280, subpart K, by reference.</p>	<p>See discussion under item 1.</p>
<p>18. Minn. R. 7150.0500 establishes incorporation of documents referenced throughout the rule.</p>	<p>The proposed amendments to this part are to clarify and update existing rule language, numbering, and update codes of practice to be equivalent to the 2015 revisions to 40 CFR pt. 280.</p>	<p>See discussion under item 1.</p>

Attachment 5.

The document pictured below is 119 pages and available at:

<https://www.gpo.gov/fdsys/pkg/FR-2015-07-15/pdf/2015-15914.pdf>



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Part II

Environmental Protection Agency

40 CFR Parts 280 and 281
Revising Underground Storage Tank Regulations—Revisions to Existing
Requirements and New Requirements for Secondary Containment and
Operator Training; Final Rule

Attachment 6

Added costs for proposed Minnesota-only requirements.

- Based on the Minnesota (MN) Underground Storage Tank (UST) database, an estimated 4,100 UST facilities exist in MN.
- The numbering established in the discussion under section 6.A.5 of the Statement of Need and Reasonableness (SONAR) is retained in the table below for consistency. Information has been grouped where applicable. The Minnesota State Fire Code is referenced as MSFC throughout this document.

Category	MN only requirements and citation	Estimated costs: small facility	Estimated costs: medium facility	Estimated costs: large facility
(a) Owners and operators of regulated UST systems	(1) Other potentially harmful substances stored in UST systems	minimal	minimal	minimal
	(2) Double poppet shear valve (~\$30 per shear valve)	2 - 6 shear valves (\$60 - \$180)	7 – 18 shear valves (\$210 - \$540)	18 or more shear valves (\$540)
	(3) Retrofit tank systems	no added costs, already subject to federal requirements	no added costs, already subject to federal requirements	no added costs, already subject to federal requirements
	(4) Submersible pump sumps installed before 12/22/07 – accessibility for inspections (\$25/hour cleaning)	1-2 submersible pumps (\$25 - \$50)	3-6 submersible pumps (\$75 - \$150)	6 or more submersible pumps (\$150 or more)
	(6) Emergency stops	no added costs, already subject to MSFC	no added costs, already subject to MSFC	no added costs, already subject to MSFC
	(7) Corrosion protection testing and repairs (\$150 per tank)	no added costs, already existing requirement	no added costs, already existing requirement	no added costs, already existing requirement
	(9) Unusual operating conditions	no added cost, existing requirement	no added cost, existing requirement	no added cost, existing requirement
	(12) Recordkeeping requirements	existing costs halved; thus, there is no added cost	existing costs halved; thus, there is no added cost	existing costs halved; thus, there is no added cost
	Total	\$230	\$690	\$690
	Estimated cost for first year of compliance=Total×(0.20)	\$46	\$138	\$138
The Minnesota Pollution Control Agency (Agency) estimates that the costs listed above are full costs for equipment that is immediately installed. The Agency believes that these are the most likely costs owners and operators will incur the first year of regulation. The proposed regulations do not require immediate equipment replacement on the effective date of the rule. Instead, equipment will be installed as the equipment needs replacement. Based on historical UST tank system repairs and upgrades, it is more realistic to estimate that 20% of the total cost, a conservative estimate, will likely to be incurred in the first year of compliance for added MN-only requirements. Costs of these requirements may vary because owners/operators choose what upgrades will occur and when they occur. Further detail is provided in section 6.A.5 of the SONAR.				

Category	MN only requirements and citation	Estimated costs: small facility	Estimated costs: medium facility	Estimated costs: large facility
(continued)	(10) Antisiphon devices (\$1,000 per device)	1-2 antisiphon devices (\$1,000 to \$2,000)	3-4 antisiphon devices (\$3,000 to \$4,000)	no known large facilities this would apply to
	(11) Line leak detectors on card-lock facilities \$1,200 per product;	1-2 line-leak detectors (\$1,200 to \$2,400)	3 to 6 line-leak detectors (\$3,600 to \$7,200)	no known large facilities this would apply to
	Estimated cost for first year of compliance for 5% of UST facilities in MN	\$4,400	\$11,200	\$0
	The Agency estimates that the costs listed above are full costs for equipment that is immediately installed. The Agency believes that these costs are less likely and that less than 5% of the sites in MN will be affected by these requirements and potential costs. Further detail is provided in section 6.A.5 of the SONAR.			
	(5) Underdispenser containment for island replacement	cost, if requirement is triggered; 1-4 dispenser sumps (\$2,000 to \$8,000)	cost, if requirement is triggered; 5-10 dispenser sumps (\$10,000 to \$20,000)	cost, if requirement is triggered; 11 or more dispenser sumps (\$22,000 or more)
	(8) Agency-approved testers (\$725 certification class and \$50 application fee; \$425/two years for recertification class and \$50 application fee)	optional costs: 4 years of agency-approved tester approval - \$1,250	optional costs: 4 years of agency-approved tester approval - \$1,250	optional costs: 4 years of agency-approved tester approval - \$1,250
	Estimated cost for first year of compliance for 5% of UST facilities in MN	\$9,250	\$21,250	\$23,250
	The Agency estimates that the costs listed above are full costs for equipment that is immediately installed, or for obtaining "agency-approved tester" status. The costs to obtain "agency-approved tester" status is not a requirement and is optional for owner/operators to obtain if they so choose. The costs for dispenser sumps when replacing islands ONLY will be incurred if the owner operators performs the island replacement and this requirement is triggered. The proposed regulations do not require immediate island replacement. Owners and operators can replace islands as they so choose, which triggers the underdispenser containment requirement. Based on the historical frequency of the island replacement, and the availability of independent testers as an alternative to immediate agency-approved tester status, it is more reasonable to estimate that less than 5% of the sites in MN will be affected by these requirements and potential costs. Further detail is provided in section 6.A.5 of the SONAR.			
(b) Manufacturers of UST systems	Already required tank components	none	none	none

Category	MN only requirements and citation	Estimated costs: small facility	Estimated costs: medium facility	Estimated costs: large facility
(c) Installers of UST systems	Administrative costs to understand new rules	none	none	none
(d) Contractors and consultants who provide UST-related maintenance, operational testing and services	Administrative costs to understand new rules	none	none	none
(e) State and federal government agencies which regulate or are otherwise involved with UST systems	UST system owners and operators	same as (a)(1) to (a)(12)	same as (a)(1) to (a)(12)	same as (a)(1) to(a)(12)
	UST system regulators	none	none	none
(f) Citizens of the State of Minnesota	Pass through costs	negligible	negligible	negligible

Attachment 7.

The document pictured below is 68 pages and available at:

<https://www.pca.state.mn.us/sites/default/files/t-u5-10.pdf>

