

**Minnesota Pollution Control Agency**

**STATEMENT OF NEED AND REASONABLENESS**

**Proposed Amendments to Rules Governing the Underground Storage Tanks (UST)  
Program - Minnesota Rules Chapter 7150**

## Table of Contents

I.	INTRODUCTION AND BACKGROUND .....	3
II.	PROCEDURAL HISTORY .....	4
III.	ALTERNATIVE FORMAT .....	5
IV.	MPCA’S STATUTORY AUTHORITY .....	6
V.	REGULATORY ANALYSIS.....	6
VI.	ADDITIONAL NOTIFICATION .....	12
VII.	CONSIDERATION OF ECONOMIC FACTORS.....	12
VIII.	IMPACT ON FARMING OPERATIONS .....	13
IX.	NOTIFICATION OF THE COMMISSIONER OF TRANSPORTATION.....	14
X.	CONSULT WITH FINANCE ON LOCAL GOVERNMENT IMPACT .....	14
XI.	MINN. STAT. § 14.127, SUBDIVISION 1 - COST THRESHOLD.....	14
XII.	STATEMENT OF NEED.....	15
XIII.	STATEMENT OF REASONABLENESS .....	16
	A. Reasonableness of the Proposed Rule Amendments as a Whole.....	16
	B. Reasonableness of the Amendments to Individual Sections of Rule.....	17
	(1) Part 7150.0010 APPLICABILITY.....	17
	(2) Part 7150.0030 DEFINITIONS.....	19
	(3) Part 7150.0090 NOTIFICATION AND CERTIFICATION. ....	23
	(4) Part 7150.0100 PERFORMANCE STANDARDS FOR UNDERGROUND .....	25
	STORAGE TANK SYSTEMS.....	25
	(5) Part 7150.0205 DESIGN AND CONSTRUCTION.....	28
	(6) Part 7150.0215 OPERATION AND MAINTENANCE OF CATHODIC .....	36
	PROTECTION.....	36
	(7) Part 7150.0300 RELEASE DETECTION. ....	37
	(8) Part 7150.0330 METHODS OF RELEASE DETECTION FOR TANKS.....	39
	(9) Part 7150.0340 METHODS OF RELEASE DETECTION FOR PIPING. ....	39
	(10) Part 7150.0400 TEMPORARY CLOSURE.....	41
	(11) Part 7150.0410 PERMANENT CLOSURE AND CHANGE IN STATUS TO ...	42
	STORAGE OF NONREGULATED SUBSTANCES.....	42
	(12) Part 7150.0420 SITE ASSESSMENT .....	42
	(13) Part 7150.0430 PREVIOUSLY CLOSED UNDERGROUND STORAGE .....	42
	TANK SYSTEMS. ....	42
	(14) Part 7150.0450 REPORTING AND RECORD KEEPING.....	43
	(15) Part 7150.0500 INCORPORATION BY REFERENCE. ....	44
XIV.	LIST OF AUTHORS, WITNESSES AND EXHIBITS .....	44
	A. Author .....	44
	B. Witnesses .....	44
	C. Exhibits .....	44
XV.	CONCLUSION.....	45

## I. INTRODUCTION AND BACKGROUND

The subject of this Statement of Need and Reasonableness (SONAR) is the amendment of certain rules of the Minnesota Pollution Control Agency (MPCA) governing the operation of regulated Underground Storage Tanks (USTs) in Minnesota. 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 waters of the state.

Due to rising concern with leaking underground storage tanks throughout the state, the MPCA was authorized and directed by the 1987 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 (USEPA) 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; options for upgrading of existing (pre-1991) UST systems by December 22, 1998, the federal UST upgrade deadline, including installation of internal tank linings; release detection options for new and upgraded UST systems such as inventory control, tightness testing, automatic tank gauging, and double-walled systems; interim standards for certain types of tanks; operating requirements for spill and overfill control, cathodic protection systems, and repairs to UST systems; reporting and recordkeeping duties; notification of status changes; temporary and permanent closure and change of service requirements; and the incorporation by reference of applicable industry standards. These UST rules have continued in effect without amendment since 1991. The vast 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 UST rules, 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 the programs, and is aimed at reducing underground storage tank releases to the environment. The UST provisions of the Energy Policy Act of 2005 focus 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 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.

This rulemaking constitutes the MPCA's response to some of the requirements set forth in the Energy Policy Act of 2005, based on Agency review of the Act and the various implementation guidance documents issued by the USEPA as criteria for state UST program approval. The MPCA has determined that several requirements, such as facility inspection frequency and public record availability, may be addressed through internal planning, policies and resource allocation. The MPCA has determined that the existing state statutory authority under Minn. Stat. § 115.071, subd. 7, for issuance of “red tags” to non-compliant tank owner/operators, together with internal procedural clarification, is adequate to address the federal delivery prohibition requirement. Although it is possible that new operator training requirements will require rule revisions, the MPCA is not addressing operator training in the present rulemaking because final federal guidance for operator training will not be issued until late 2007.

The MPCA is revising Minn. R. ch. 7150 primarily in order to comply with the new federal groundwater protection requirements which will affect state UST program approval and for which final USEPA guidance has been issued. At the same time, the MPCA has comprehensively reviewed the UST rules for the first time since their initial promulgation in 1991, and proposes to clarify and update existing rule 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 UST program regulation. The MPCA believes that the proposed rule changes will ensure federal program compliance, significantly clarify requirements for those who must comply, and continue to protect Minnesota’s ground and water resources from pollution by releases from underground storage tank systems.

Most requirements in existing rules remain unchanged in this proposal. This SONAR does not discuss existing UST rules that the MPCA does not propose to modify, including requirements that have simply been relocated, since the need for and reasonableness of these rules was addressed in the 1991 SONAR.

## **II. PROCEDURAL HISTORY**

The proposed revisions to the UST rules were developed with significant input from MPCA staff, regulated parties, interest groups, other state UST programs, and the USEPA. The MPCA took the following steps to notify interested parties about the proposed rule revisions and to get their input prior to publishing the draft rule in the State Register:

1. A notice was published in the State Register on August 21, 2006, entitled “Request for Comments on Planned Rule Amendments to Minnesota Rules Chapters 7150 and 7105 Governing Underground Storage Tanks (UST).” The notice identified the subject and scope of the proposed rules, the persons likely to be affected, the MPCA’s statutory authority, a rough timeline for rule development, and how to get more information.
2. In August, 2006, a public website for the UST rules development process was launched (<http://www.pca.state.mn.us/rulesregs/ust-rules.html>). The website has been used to notify stakeholders of meetings, maintain a schedule for the rules process, provide online access to rule drafts and other relevant documents and links to related websites, and how to contact the MPCA for more information.

3. Public informational meetings were held in Mankato on September 11, 2006; in St. Paul on September 12, 2006; and in Brainerd on September 13, 2006. The meeting schedule was posted on the rules website and advertised to affected parties in several trade publications. The purpose of the meetings was to describe the mandates of the Energy Policy Act of 2005, get broad input on some preliminary ideas for rule changes, and better understand the issues and concerns of stakeholders.

4. Early in the rulemaking process, a list of parties specifically interested in the UST rulemaking was developed from the public meetings attendees lists, website and word-of-mouth inquiries, industry contacts known to the MPCA, and other sources. The list includes tank owner/operators; petroleum refiners and marketers; trucking companies; petroleum equipment manufacturers, marketers and installers; environmental compliance consultants; and state and federal government agencies. Individuals as well as their industry associations are represented on the list. The MPCA has continued to use and add to the stakeholder list for all subsequent public communications.

5. Following the initial public scoping meetings, a preliminary draft of the rule revisions was developed by the MPCA. During the rule draft development process, the MPCA solicited feedback from, spoke with, corresponded with, and met with various affected parties, including the Steel Tank Institute, the Minnesota Petroleum Marketers Association, the Minnesota Service Station Association, the Department of Commerce's Petrofund and Weights and Measures programs, and individual tank owner/operators, manufacturers, and installers.

6. On November 15, 2006, the final USEPA guidance document for secondary containment was published, and on January 22, 2007, the final USEPA guidance document for manufacturer/installer financial assurance and installer certification was published. Throughout the rulemaking process, the MPCA has communicated with the USEPA regarding their views of the proposed Minnesota rule revisions and their state program approval criteria.

7. On November 20, 2006, a public informational meeting was held in St. Paul at the MPCA central office to seek stakeholder input on the preliminary written draft of the rule revisions. The meeting was advertised by posting on the UST rules website and by written notice to the stakeholder list. The draft rules and a summary of the draft rules were available for downloading from the website, mailed upon request, and distributed at the meeting. Extensive verbal comments were received from attendees.

The MPCA believes that the process used for development of the UST rule revisions was open and provided many opportunities for those interested in underground storage tanks and environmental protection to participate and provide input into the revisions.

### **III. ALTERNATIVE FORMAT**

Upon request, this SONAR can be made available in an alternative format, such as large print, Braille, or cassette tape. To make a request, contact Chris Bashor at the MPCA, Industrial Division, 520 Lafayette Road North, St. Paul, MN 55155-4194; phone 651-297-8618; fax

651-297-2343; or e-mail [chris.bashor@state.mn.us](mailto:chris.bashor@state.mn.us). TTY users may call the MPCA at 651-282-5332 or 800-657-3864.

#### IV. MPCA'S STATUTORY AUTHORITY

The MPCA's statutory authority to adopt these specific provisions is set forth in Minn. Stat. § 116.49, Environment Protection Requirements, which provides:

*Subdivision 1. Rules. The agency must adopt rules applicable to all owners and operators of underground storage tanks. The rules must establish the safeguards necessary to protect human health and the environment. The agency may delay adopting the rules until the United States Environmental Protection Agency proposes regulations for regulated substances, as defined in section 116.46, subdivision 6, clause (1). The agency shall delay adopting the rules for regulated substances, as defined in section 116.46, subdivision 6, clause (2), until the United States Environmental Protection Agency publishes final regulations for underground storage tanks, or February 8, 1987, whichever is earlier.*

Under Minn. Stat. § 116.49, the MPCA has the necessary statutory authority to adopt the proposed rules.

The proposed rule can be enforced in accordance with the authority provided to the MPCA including authority in Minn. Stat. § 115.071, Minn. Stat. § 116.072, and Minn. Stat. § 116.073. The MPCA has general authority to enforce its rules under these statutes. If approved, the changes to the existing rule will be enforceable by the MPCA.

Minn. Stat. § 14.125 requires the MPCA to publish a notice of intent to adopt a rule within 18 months from the effective date of the law authorizing the rulemaking. This statute also provides that if rules are adopted within the deadline from the authorizing legislation, the MPCA may subsequently amend or repeal the rules without additional legislative authorization. This rulemaking is an amendment to existing rules and thus the Minn. Stat. § 14.125 deadline does not apply.

#### V. REGULATORY ANALYSIS

Minn. Stat. § 14.131, sets out seven factors for a regulatory analysis that must be included in the SONAR. Paragraphs (1) through (7) below quote these factors and then provide the MPCA's response. Paragraph (8) address additional requirements listed in Minn. Stat. § 14.002.

**1. "A description of the classes of persons 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 regulated UST systems
- Manufacturers of UST systems

- Installers of UST systems
- Contractors and consultants who provide UST-related maintenance and operational services
- State and federal government agencies which regulate or are otherwise involved with UST systems
- Citizens of the state of Minnesota

The costs of the proposed rule changes will primarily be borne by owner/operators of UST systems who replace tanks, piping, or dispensers in the future, or install new UST systems and components, and by operators responsible for day-to-day operation and maintenance of UST systems. Owners and operators, manufacturers, installers, contractors, consultants, marketers and distributors, and government agencies will bear some administrative costs in learning about and complying with the new requirements.

The citizens of the State of Minnesota (State) will benefit from the implementation of additional groundwater protection measures, such as tank and piping secondary containment and under-dispenser containment, through the reduction in tank leaks and spills and thus the public costs of release response and remediation covered by the state’s Petroleum Tank Fund (Petrofund) program under Minn. Stat. §§ 115C.08 and 115C.09. All classes of affected parties will benefit from clarification of rule language, itemization of compliance duties and options, elimination of uncertainty and ambiguity, and a more logical and readable organization of the requirements.

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

The additional cost to the MPCA of implementation and enforcement of the proposed UST rule changes is anticipated to be minimal. Some administrative effort will be expended to update agency databases, written forms and documents to reflect the new rules, and to communicate the changes to the regulated community. The pool of regulated parties will not change, nor will the number of or complexity of requirements, so compliance and enforcement procedures will continue to be conducted at the same level with existing staff resources. The rule changes are not anticipated to have any effects on any other state agency, other than in the capacity of owner or operator of a regulated UST system.

The revised rules are not anticipated to have any negative impact on state revenues. On the other hand, they are anticipated over time to reduce state Petrofund expenditures for leak site cleanup projects, since there will be fewer releases from secondarily contained UST systems.

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

In the Energy Policy Act of 2005, Congress required that states adopt one of two regulatory alternatives for groundwater protection, either secondary containment of new UST systems or financial assurance for manufacturers and installers, in order to retain state UST program approval. The MPCA evaluated the financial assurance option, but did not evaluate any other alternative due to the need to retain program approval by USEPA for funding purposes.

The MPCA has concluded that while the financial assurance approach to groundwater may initially be less costly to certain categories of affected parties (e.g. owner/operators of UST systems who purchase new or replacement systems) since secondarily contained system components at present average 15 percent more in cost, it would be more costly to other categories of affected parties, (e.g. manufacturers and installers required to maintain financial assurance in place for 30 years). In fact, the financial assurance option may not be less costly to owner/operators if manufacturers and installers pass along the additional costs in the purchase price of new systems. Manufacturers have indicated in public correspondence that due to high cost or unavailability of financial assurance they may not sell non-secondarily contained UST systems in states requiring financial assurance, leading to significantly higher costs to owner/operators of these systems. In addition, in the long run, non-secondarily contained systems tend to have a higher failure rate, leading to higher remediation costs for owner/operators and for the State. The costs and benefits of the financial assurance option are discussed in more detail in Part XIII.B of this SONAR, under part 7150.0205, subp. 1.

The alternative to rule clarification and reorganization in this proposal would be to retain the present rule language. While this would avoid the costs of administrative adjustments by the MPCA and regulated parties to new rule language, the costs of the present lack of clarity and need for policy development and communications with industry would remain.

**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.”**

The financial assurance option is discussed in detail and reasons for rejection are given in Parts V.3 and XIII.B of this SONAR.

**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 government units businesses, or individuals.”**

Estimated types of costs of compliance, by category of affected parties:

- Owners and operators of regulated UST systems

Costs of secondarily contained systems (tanks, piping, dispensers) are at present approximately 15 percent higher than non-secondarily contained systems. However these costs would apply only to new and replacement systems, which are replaced only at 20-40 year intervals, and would not apply to the vast majority of existing UST systems. Also, the alternative regulatory option (financial assurance) may increase costs to owner/operators a similar or greater amount. There would be some administrative costs to certain owner/operators as a result of changes or additional requirements related to notification, sump inspection, cathodic protection testing, and recordkeeping procedures.

- Manufacturers of UST systems



There is no anticipated cost impact to manufacturers of UST systems because systems meeting the proposed secondary containment tank and piping designs are already being marketed.

- Installers of UST systems

There is no anticipated cost impact to installers, other than administrative costs to understand the new requirements and adopting new procedures.

- Contractors and consultants who provide UST-related maintenance and operational services

There will be minor administrative costs to contractors and consultants in adopting and offering to customers new procedures for inspections, testing, and maintenance.

- State and federal government agencies which regulate or are otherwise involved with UST systems

There will be minor administrative costs to the MPCA to revise forms, documents and procedures to conform to the new requirements.

- 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. 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 leak-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 owner/operators without secondarily contained UST systems will be subject to an increased risk of leaks and spills, and will bear the portion of remediation costs not covered by the state Petrofund program. They may also be subject to potential lawsuits resulting from leaking UST systems.

- 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

There will be continued uncertainty of interpretation and application of some rule language and requirements. More staff time will be spent for enforcement due to lack of maintenance and inspection requirements to prevent leaks and spills at submersible pumps and dispensers.

- Citizens of the state of Minnesota

There may be higher gas costs at the pump due to more frequent imposition of the Petrofund fee to cover increased remediation costs

**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.”**

In general, the Minnesota UST rules are intended to follow federal UST policies and regulations, unless there is specific state concern or difference where the state wants to be more stringent. State UST rules may be more stringent than federal rules, but are not allowed to be less stringent. State UST program guidelines and review by USEPA ensure that minimum federal requirements are met.

The following requirements proposed by the MPCA are additional to, or have a wording difference from, the corresponding federal requirement:

- Certain UST facilities which are deferred from regulation by federal rules would have a permanent status, either regulated or excluded: radioactive material USTs at nuclear facilities, field-erected USTs, airport hydrant systems, emergency power generator tanks, and heating oil tanks. See part 7150.0010.
- All new and replacement UST systems, rather than only those within 1000 feet of a drinking water well or community water supply, would be subject to the secondary containment design requirement. See part 7150.0205, subps. 1 and 3.
- If a new or replacement tank is installed, all piping appurtenant to the tank must be secondarily contained. See part 7150.0205, subp. 1.

- If piping has corrosion damage, or has a release, then the entire segment must be replaced with secondarily contained piping. See part 7150.0205, subp. 3.
- If any new or replacement dispenser is installed, not just motor fuel dispensers, then under dispenser containment is required. See part 7150.0205, subp. 7.
- All spill catchment basins, submersible pump sumps, and dispenser sumps must be liquid tight and checked on a monthly basis for stormwater, spilled product, and debris. See parts 7150.0100, subp. 12, and 7150.0300, subp. 7.
- All new and replacement submersible pumps must be secondarily contained. See part 7150.0205, subp. 6.
- Impressed current cathodic protection systems must be checked for proper function on an annual basis. See part 7150.0215, subp. 3.
- Annual testing of any continuous sensing device must be performed. See part 7150.0300, subp. 7.
- Temporarily closed tanks must be permanently closed after five years. See part 7150.0400, subp. 5.

Discussion of the reasons for each of these state-federal differences is found in the applicable section of Part XIII.B of this SONAR.

**8. “Describe how the agency, in developing the rules, considered and implemented the legislative policy supporting performance-based regulatory systems set forth in section 14.002.” Minn. Stat. § section 14.002 states:**

*...the legislature finds that some regulatory rules and programs have become overly prescriptive and inflexible, thereby increasing costs to the state, local governments, and the regulated community and decreasing the effectiveness of the regulatory program. Therefore, whenever feasible, state agencies must develop rules and regulatory programs that emphasize superior achievement in meeting the agency’s regulatory objectives and maximum flexibility for the regulatory party and the agency in meeting those goals.*

The proposed revisions related to secondary containment for UST systems are specific in nature to meet the minimum federal requirements in the Energy Policy Act of 2005. Therefore, the use of a performance based approach does not readily apply.

## **VI. ADDITIONAL NOTIFICATION**

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 must explain why these efforts were not made.

The MPCA intends to send a copy of the Dual Notice to the following people and organizations:

- A. All parties who have registered with the MPCA for the purpose of receiving notice of rule proceedings, as required by Minn. Stat. § 14.14, subd. 1a;
- B. All individuals and representatives of associations the MPCA has on file for this rulemaking as interested and affected parties; and
- C. 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, will also receive a copy of the proposed rule amendments, SONAR, and dual notice as required by Minn. Stat. § 14.116. 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. However, since the original legislative authorization dates from the 1987 legislative session, this provision does not apply.

The MPCA intends to notify all registered owners of underground storage tanks and certified UST contractors of its intent to adopt proposed rules by mailing them a postcard that will contain the following information: (a) how to obtain a hard copy of the proposed rules, SONAR and Dual Notice; (b) the address of the MPCA web page where these three documents will be located and additional rulemaking information is available; and (c) how to submit comments on the proposed rules. The MPCA believes this is a reasonable approach given the number of registered owners and contractors (approximately 8,000).

In addition, a copy of the Dual Notice, proposed rule amendments and SONAR will be posted on the MPCA's Public Notice Web site at ([www.pca.state.mn.us/news.index.html](http://www.pca.state.mn.us/news.index.html)) and on the MPCA's Underground Storage Tank Rules website at <http://www.pca.state.mn.us/rulesregs/ust-rules.html>.

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 web page will adequately provide notice of this rulemaking to persons interested in or regulated by these rules.

## **VII. CONSIDERATION OF ECONOMIC FACTORS**

In exercising its powers, the MPCA is required by identical provisions in Minn. Stat. § 116.07, subd. 6, and Minn. Stat. § 115.43, subd. 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 therefrom, and shall take or provide for such action as may be reasonable, feasible, and practical under the circumstances.*

The MPCA has chosen to assess the impact of revised UST rules on business and commerce, and the feasibility and practicability of specific rule requirements, through an extensive consultation process with affected parties and their representatives during the development of this proposal. This consultation process is described in Part II of this SONAR. The MPCA believes that the process used for development of the UST rule revisions was open and provided many opportunities for those in UST-related businesses to participate and provide input into the revisions. The MPCA has made many modifications to its initial proposals based on feasibility and practicality of specific requirements for tank manufacturers, installers, owners, and operators, so long as the spirit and requirements of the Energy Policy Act of 2005 could be met.

### **VIII. IMPACT ON FARMING OPERATIONS**

Minn. Stat. § 14.111 requires an agency to provide a copy of the proposed rule changes to the Commissioner of Agriculture no later than thirty days prior to publication of the proposed rule in the *State Register*, if the rule has an impact on agricultural land. The proposed rules will have a minor impact on agricultural land; therefore, the MPCA will provide the required notification to the Commissioner of Agriculture.

UST systems located on farms are, in general, subject to MPCA regulations on the same terms and conditions as other types of UST facilities, except that farm USTs of 1,100 gallons or less capacity which store motor fuel for non-commercial purposes are exempt. The MPCA does not propose to change the applicability of the UST rules to agricultural operations.

A review of the tank registration database, which includes USTs and Aboveground Storage Tanks (ASTs), as well as the data gathered during the MPCA's AST rulemaking in 1998, indicates that the vast majority of tanks, approximately 98 percent, that are used for agricultural purposes and located on farms, are ASTs. Most of the few USTs that are found on farms are small, less than 1,100 gallons capacity, and thus not subject to regulation. The MPCA believes that only a very small number of larger agricultural USTs, perhaps less than 25, are currently located on farms and regulated by the MPCA.

The primary incremental cost of the proposed rules to traditional agricultural operations would be the requirement that new and replacement UST systems be secondarily contained. The MPCA has no reason to anticipate that the current agricultural practice with respect to usage of motor fuels (i.e. to purchase fuels commercially off-site or, for on-site tanks, to use either ASTs or small USTs) will change. Therefore, the MPCA does not anticipate that more than a handful of larger USTs will be installed on farms in the near future and the impact to traditional agriculture will be minor.

Some USTs found in agriculture-related settings other than farms that are **not** exempt from the rules include:

- laboratories where animals are raised;
- land used to grow timber;
- pesticide aviation operations;
- retail stores or garden centers where the products of nursery farms are marketed, but are not produced; and
- golf courses or other places dedicated primarily to recreational, aesthetic, or other non-agricultural activities.
- 

Most USTs at these facilities handle small throughput volumes, and are typically small tanks (less than 1,100 gallon capacity). The MPCA data shows that very few regulated UST systems now exist at these locations, and it can be anticipated that few will be installed in the future.

#### **IX. NOTIFICATION OF THE COMMISSIONER OF TRANSPORTATION**

Minn. Stat. § 174.05 requires the MPCA to inform the Commissioner of Transportation of all rulemakings that concern transportation, and requires the Commissioner of Transportation to prepare a written review of the rules. Although the MPCA does not believe this rulemaking will be of any special concern regarding transportation, the Commissioner of Transportation has received notice of the Request for Comments and, as an interested party, will receive the Dual Notice and the proposed rule amendments.

#### **X. CONSULT WITH FINANCE ON LOCAL GOVERNMENT IMPACT**

Minn. Stat. § 14.131 requires the MPCA to consult with the Department of Finance to help evaluate the fiscal impact and benefits of proposed rules on local governments. In accordance with the interim process established by the Department of Finance on June 21, 2004, the MPCA will provide the Department of Finance with a copy of the proposed rule and SONAR at the same time as the Governor's Office. This timing allows the fiscal impacts and fiscal benefits of a proposed rule to be reviewed by the Department of Finance concurrent with the Governor's Office review (up to 21 days).

The proposed rules will impact local units of government which may own or operate underground storage tanks to the same extent as private owners and operators. See Part V, Sections 1, 5, and 6 for further discussion.

#### **XI. MINN. STAT. § 14.127, SUBDIVISION 1 - COST THRESHOLD**

Minn. Stat. § 14.127, subd. 1, requires the MPCA to assess the potential economic impact to small businesses of complying with this proposed rule amendment. The statutory provision is as follows:

*An agency must determine if the cost of complying with a proposed rule in the*

*first year after the rule takes effect will exceed \$25,000 for: (1) any one business that has less than 50 full-time employees; or (2) any one statutory or home rule charter city that has less than ten full-time employees. For purposes of this section, "business" means a business entity organized for profit or as a nonprofit, and includes an individual, partnership, corporation, joint venture, association, or cooperative.*

The following is offered to fulfill the requirements of Minn. Stat. § 14.127, subd. 1.

These rules are proposed in part pursuant to a specific federal statutory mandate. The federal law that mandates certain requirements in the proposed rules is discussed in more detail in Part I of this SONAR. The primary requirement mandated by federal law is the requirement for secondary containment of new and replacement UST systems and under-dispenser containment. Therefore, any incremental cost to a small business or charter city, as defined in Minn. Stat. § 14.127, subd. 1, associated with secondary containment requirements has not been considered in this determination. Certain requirements proposed for the MPCA UST rules are in fact existing requirements, e.g. drop tubes (Minnesota air quality rules) and shear valves (Minnesota Fire Code), and, therefore, were not considered in the determination.

With respect to the remaining costs attributable to the proposed revisions, the MPCA has estimated the maximum incremental costs in the first year after the effective date that could potentially impact a single hypothetical UST small business as defined in the statute, i.e. a “Mom-and Pop” service station, as follows:

Cathodic protection testing (assuming impressed current type system)	\$250.00
Increased monthly sump and basin checks, maintenance, and recordkeeping	\$1687.50
TOTAL	\$1937.50

This total cost would not exceed the statutory \$25,000 cost threshold for a small business to be eligible for a temporary compliance waiver.

## **XII. STATEMENT OF NEED**

Minn. Stat. ch. 14 requires the MPCA to make an affirmative presentation of facts establishing the need for and reasonableness of the rules as proposed. In general terms, this means that the MPCA must not be arbitrary or capricious in proposing rules. However, to the extent that need and reasonableness are separate, “need” has come to mean that a problem exists that requires administrative attention, and “reasonableness” means that the solution proposed by the MPCA is appropriate. The need for the rule is described below.

With the passage of the federal Energy Policy Act of 2005, the MPCA became obligated to modify state UST rules to comply with the minimum requirements of the Act, as interpreted through guidance issued by the USEPA, in order to continue to receive federal funding for state

UST programs. Federal funding, when combined with state funding, has been an important factor in Minnesota's UST regulatory oversight program for many years, as with most other environmental programs in the State and in other states. This rulemaking is needed to maintain federal funding and continue the effective state-federal partnership in protecting the state's environment and natural resources.

Despite the initiation of UST rules in 1991 and the final deadline for upgrading of existing UST systems in 1998, releases from tanks and piping have continued to occur, although with a much lower frequency than in the years prior to 1991. These releases have had an impact on the soil and water resources of Minnesota, as well as a financial impact on the public through the Petrofund cleanup program. This rulemaking is needed to revise certain requirements in order to reduce or eliminate the risk of future releases from UST systems. The MPCA believes that most risk reduction can be accomplished through the federal minimum requirements; however, the experiences of the State UST program over that past 16 years shows that there is an additional need for state-specific requirements to address certain problems, as described in this SONAR. Reduction or perhaps elimination of UST system spills and leaks will protect the waters of the state and reduce the burden on state taxpayers to fund cleanups, and may eventually lead to the phase-out of the Petrofund.

The UST rules have not been reviewed since their original promulgation in 1991. In that time a number of sections of the rules have proven to be unnecessary, confusing, unclear, or capable of multiple interpretations. The rules as a whole are not well-organized. Availability of newer UST system safeguards are not reflected in the rules. In addition, the MPCA has observed some common, generally minor, maintenance and compliance problems on the part of tank owner/operators that could be addressed through additional requirements. The MPCA has identified a need to comprehensively review and address these problems with the existing rule language.

### **XIII. STATEMENT OF REASONABLENESS**

Minn. Stat. ch. 14 requires the MPCA to explain the facts establishing the reasonableness of the proposed rule amendments. "Reasonableness" means that there is a rational basis for the MPCA's proposed action. The reasonableness of the proposed rule is explained in this section. This section is broken into two parts, addressing reasonableness as a whole and reasonableness of the individual rule parts.

#### **A. Reasonableness of the Proposed Rule Amendments as a Whole.**

The purpose of Minnesota's Underground Storage Tank rules 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 waters of the state. The federal government has decided that on a national basis the present requirements for design and operation of UST systems are insufficient to prevent continued releases from UST systems that may affect groundwater, and that states must increase their level of UST preventative regulation. This echoes Minnesota's experience of new leak sites



continuing to be added to the Petrofund cleanup program and public money expended for remediation. Therefore, it is reasonable and cost-effective to implement additional state requirements to prevent continued leaks and spills from UST systems. It is also reasonable to do so in order for Minnesota to continue to work cooperatively with USEPA and receive the benefits of federal funding for state UST programs.

Given that it is reasonable to initiate rulemaking to comply with federal mandates, it is also reasonable to address any additional rule changes that may be needed at the same time. It is administratively efficient and reasonable to address the various rule clarifications described in the Statement of Need and Reasonableness and re-organize the rule sections at this time, since rulemaking is inherently a time-consuming and infrequent regulatory process.

## **B. Reasonableness of the Amendments to Individual Sections of Rule.**

This section addresses the reasonableness of each rule part and what each rule requirement is intended to do, why it is needed, and why it is reasonable. Some rule parts are obvious as far as their need and reasonableness and therefore are only explained briefly, while others are explained in more detail.

### **(1) Part 7150.0010 APPLICABILITY.**

#### **Subp. 1. Scope.**

The scope of the new rules remains unchanged. The reference to requirements for deferred UST systems in this subpart has been deleted, since there is no longer a deferred status under the new rules. The reasons for repeal of the deferrals are discussed in subps. 2 and 3 below.

#### **Subp. 2. Exclusions.**

All exclusions in the existing rules continue in effect, and several new exclusions have been added to the new rules.

The MPCA has added new subpart 2(O) primarily for clarification that oil water separators are excluded from the requirements of this chapter. Oil water separators are normally located underground and contain petroleum from time to time, they have a very different design and operation from USTs regulated by this chapter, and the MPCA has never considered oil water separators to be regulated.

In subps. 2(P) and 2(Q), the MPCA has determined that USTs containing radioactive material or which are located at nuclear plants should be permanently excluded from regulation rather than deferred from regulation. After almost 20 years under deferred status, the MPCA can identify no compelling reason to regulate these tanks.

Minnesota has only one airport hydrant fuel distribution system, which is located at the Minneapolis St. Paul (MSP) airport. Hydrant systems were deferred from the federal UST rules in 1988 and from the Minnesota UST rules in 1991. In 1998, hydrant systems which are

connected to aboveground storage tanks, such as the MSP hydrant system, became regulated under the AST rules, and in 2003 a comprehensive AST Major Facility Permit was issued for the MSP hydrant system. The MPCA finds that the MSP hydrant system, and any future such system, will be adequately regulated under the AST rules. Thus, subp. 2(R) would exclude these systems from the UST rules. This exclusion applies only to the scheduled carrier fueling system comprised of ASTs connected to a network of underground piping and other appurtenances such as isolation valves, drain/bleed valves, and specialized aircraft fuel dispensers (hydrants), which delivers fuel to aircraft at the Lindbergh and Humphrey terminals. The exemption does not cover other USTs and their appurtenances which may be located at the airport but which are not connected to the hydrant system and do not deliver fuel to commercial aircraft, such as USTs that deliver motor fuel to rental cars and aircraft service vehicles through normal dispensers, and USTs that store used oil from motor vehicles or spilled jet fuel, all of which continue to be regulated under chapter 7150.

The MPCA has not specified a new exclusion for “wastewater treatment tank systems,” since such systems have always been excluded by existing part 7150.0010, subp. 2(B).

### **Subp. 3. Deferrals. (repealed)**

The existing part 7150.0010, subp. 3, states that five types of UST systems – wastewater treatment tank systems, USTs containing radioactive material, emergency generator USTs at nuclear power generation facilities, airport hydrant systems, and field-constructed USTs – are deferred from most requirements of chapter 7150. In the 1991 UST SONAR, the MPCA stated that further information about these facilities was necessary and they would be considered for inclusion or exclusion at a later date. That evaluation is now complete and these facility types have a proposed permanent regulatory status in the amended rules, so this subpart is repealed.

The permanent exclusion status for the first four UST system types was discussed under subpart 2. Regarding the fifth type (field-constructed USTs), the MPCA has no evidence that any field-constructed USTs containing regulated substances now exist in the state. If such field-constructed tanks are installed in the future they will be subject to chapter 7150, and any special circumstances of field construction may be addressed through the various approval processes in the rules for alternative safeguards.

Part 7150.0020 of the existing rules identifies interim requirements for deferred USTs, including heating oil tanks and emergency generator tanks. Since the MPCA has determined that these types of UST systems should have a permanent status, interim standards are no longer necessary and are therefore repealed.

### **Subp. 4. Emergency power generator tanks.**

The MPCA is not altering the requirements applicable to emergency power generator tanks in the existing rules. The only changes are to the cross references to renumbered sections of the new rules.

### **Subp. 5. Heating oil tanks.**

The MPCA is not altering the requirements applicable to heating oil tanks with greater than 1,100 gallons capacity in the existing rules. The only changes are to the cross references to renumbered sections of the new rules.

### **(2) Part 7150.0030 DEFINITIONS.**

The MPCA is modifying certain definitions, adding new definitions to clarify new requirements, and deleting certain definitions which are no longer necessary.

### **Subp. 3. Appurtenances.**

The word “dispensers” has been added to the list of devices defined as appurtenances. Dispensers are connected to underground storage tanks and facilitate the flow of regulated substances to and from regulated USTs, and as such are part of regulated underground storage tank systems and have always been subject to UST regulation. It is reasonable to clarify their status under the rules since the rules now have specific requirements for dispensers.

### **Subp. 6. Cathodic protection tester.**

In the definition of “cathodic protection tester,” the MPCA is clarifying its past practice of using the cathodic protection tests given by the National Association of Corrosion Engineers and by the Steel Tank Institute to determine whether the person has the requisite knowledge described in the definition. These organizations are recognized as the most reputable ones in the field of corrosion control standards, training, and testing. The phrase “can demonstrate” is replaced by “has demonstrated” to clarify that the tests must be passed prior to working as a tester, and the word “also” is added to clarify that the required education and experience is additional to the required testing.

### **Subp. 7. Change in status.**

The phrase “change in service” in the existing rules, in this definition and wherever it occurs in the rules, is replaced with the phrase “change in status”. This has been done to clarify that the changes identified in the definition are not merely with regard to service (the stored substance) but cover a variety of status changes such as change in ownership. Minn. Stat. § 116.48, subd. 3, as referenced in the definition, uses this phrase as well. This clarification is not intended to change the existing meaning or application of the phrase. The phrase “or an upgrade under this chapter” is deleted since UST system upgrades are no longer a regulatory requirement. The definition also includes “temporary closure of 90 days or more” to correspond to the clarification of the existing duty to notify of temporary closure to temporary closure lasting 90 days or more, which is discussed under part 7150.0400, subp. 3. “Change to storage of a nonregulated substance” required under the existing rules has also been added as an example of change in status.

### **Subp. 8. Permanent closure.**

The existing definition “Closure or removal” is renamed “Permanent closure” and reworded for clarification, for three reasons: (1) to distinguish permanent closure from temporary closure, which have very different requirements; (2) to be internally logical, since existing part 7150.0410 makes clear that tank removal is one form of permanent closure, the other being closure-in-place; and (3) to delete the example “converting it to store a nonregulated substance,” since this action is not a form of either temporary or permanent closure but rather a change in status.

### **Subp. 10. Compatible.**

The MPCA is deleting the phrase “for the design life of the tank system” from the definition of the term “compatible” to clarify that it is not the intent of the definition that the tank (or other component of the UST system) must be warranted or otherwise expected to remain entirely unchanged in the presence of the stored substance for the full life of the tank. It is reasonable to expect normal wear and tear and slow degradation over time. The intent is that the tank (or component) and the stored substance must have properties that do not change or react immediately, or in the short term, in each other’s presence, leading to swift container degradation or contamination of the substance. The word “system” is added to clarify that the compatibility requirement applies to appurtenances as well as tanks.

### **Subp. 11. Connected piping.**

The word “should be” is changed to “is” to clarify that allocating piping equally is mandatory rather than discretionary.

### **Subp. 14a. Dispenser.**

Since new requirements for dispensers of regulated substances have been added to the UST rules, it is reasonable to define the term “dispenser”. The wording describes any equipment that is used to control transfer of regulated substances out of the regulated UST system to an unregulated point of use, such as a vehicle. A broad wording is reasonable since any such equipment will contain regulated substances and may leak or spill without adequate safeguards.

### **Subp. 17. Existing tank system. (repealed)**

This definition is being repealed because this term was used to identify tanks that existed prior to the original UST rules that were subject to the upgrade requirements of the rules. Since upgrading of these tanks was completed in 1998, this definition is no longer necessary.

### **Subp. 22. Hazardous material.**

In subp. 22(A), the word “constituents” has been added to clarify the meaning of the reference to subp. 36(C). Subp. 22 makes clear that substances which meet both the subp. 22 definition of

hazardous materials and the subp. 36 definition of petroleum, including petroleum constituents, are considered hazardous materials. An example of such a petroleum constituent is benzene.

**Subp. 25a. Lessee.**

The MPCA has added a definition of lessee for the purpose of identifying a group of persons who lease tanks. A definition is needed because under part 7150.0090, subp. 7, the owner of the tank must verify to the MPCA after a tank purchase that the lessee has sufficient knowledge in the operation and maintenance of UST systems. This definition is reasonable because it is a standard definition of lessee.

**Subp. 27. Motor fuel.**

The MPCA has added the term “biodiesel,” the common expression for various mixtures of soy biodiesel and petroleum diesel, to the list of substances categorized as motor fuel, because B5 biodiesel is currently required to be sold in Minnesota for use in diesel engines.

**Subp. 28. New tank system. (repealed)**

This definition is being repealed because this term was used to identify tanks that were not existing tanks under the original UST rules. Because the proposed rule amendment makes no distinction between existing tanks and new tanks, this definition is no longer necessary.

**Subp. 31. Operational life.**

The word “permanently” has been substituted for the word “properly” in this definition because the term actually used in part 7150.0410 is “permanent closure.”

**Subp. 36. Petroleum.**

Because Minnesota Statutes chapter 296 has been repealed and replaced with chapter 296A, the references found in subp. 36(A), have been revised to reference the current definitions in chapter 296A. This includes the division of the former definition of fuel oil into two new definitions, diesel fuel oil and heating fuel oil. The MPCA believes this causes no change to the meaning or application of the existing rules.

**Subp. 43. Repair.**

The definition of repair has been substantially revised in the new rules for two reasons. First, the definition has been revised to reflect the completing of the tank upgrading process. The existing definition defined repair to include upgrading of UST systems that existed at the time the rules became effective in 1991 and which were not adequately protected from corrosion. Since upgrading was completed by December 31, 1998, the word “upgrading” and the examples given, such as internally lining a tank, are no longer necessary and have been deleted from the definition.

Second, due to new requirements for secondary containment of tanks, piping, and dispensers at the time these components of UST systems are replaced, it is necessary to distinguish repair activities, for which containment is not required, from replacement, so that tank owners and operators will know when secondary containment is required. Section 1530 of the Energy Policy Act of 2005 states that the containment requirement does not apply repairs intended to restore tanks, piping, or dispensers to operating condition. In the case of piping repairs, it is common that short sections of new pipe are necessary, for example as part of the repair of a connector or valve. It is reasonable to allow a small amount of new single-walled piping to replace existing single-walled piping at the time a repair is performed, so as to avoid the complication and expense of connecting new double-walled piping to single-walled piping, forcing an owner or operator to consider the alternative of replacing the entire pipe run with double-walled piping. The definition of repair allows a single run of up to ten feet of new uncontained piping as part of a repair, whereas more than ten feet of new piping is considered replacement which must use a contained design. The distance of ten feet is reasonable because it accommodates most true repairs to localized areas of piping, but is shorter than the ordinary distance between tanks and dispensers to discourage abuse of the repair exception to the containment requirement.

Similarly, when an existing dispenser is replaced with a new dispenser, there may be repair work on the piping and valving located just beneath the dispenser, in order to connect the new dispenser to the UST system. Since part 7150.0210. subp. 7, requires under-dispenser containment if certain piping is replaced (see further discussion of this requirement in that section of this document), it is reasonable to define as repairs the minor pipe work associated with dispenser attachment which will not require under-dispenser containment.

#### **Subp. 43a. Replace or replacement.**

Due to new requirements in these proposed rules for secondary containment of tanks, piping, and dispensers at the time these components of UST systems are replaced, it is necessary to define replacement so that tank owners and operators will know when secondary containment is required. Replacement is defined as removing an existing UST or appurtenance and installing a new UST or appurtenance in lieu of the existing UST or appurtenance, except in the case of the installation of new piping in connection with certain repairs as described in part 7150.0020, subp. 43, the definition of repair. The definition makes clear that not only the replacement of the entire UST system but also the replacement of a single appurtenance, such as a length of piping, constitutes replacement.

#### **Subp. 44a. Secondary containment tank or secondary containment piping.**

Due to new requirements in these proposed rules for secondary containment of new and replacement tanks and piping, it is reasonable to clearly define secondary containment with respect to the design of a given tank or type of piping to indicate to tank owner/operators which products will comply with the rules. The criteria are essentially the same between tanks and piping. There must be two shells (or barriers), an inner primary shell which stores or transports the substance and an outer secondary shell or jacket to keep any leaks through the inner shell from reaching the environment. The outer shell must be made of a liquid-tight material such as steel, fiberglass reinforced plastic, or a similar impermeable material that can contain a leak until

it is detected. The outer shell must extend around the entire inner shell in a manner designed to contain a leak from any part of the tank or piping which routinely contains product. The outer shell need not contain a leak from an area of the tank or an appurtenance such as a vent line which does not normally have any liquid present. The tank or piping must be designed so that the interstitial space between the shells can be easily and effectively monitored for leaks by a tank owner or operator. This definition is substantially equivalent to the definitions of secondary containment for tanks storing hazardous materials found in part 7150.0320, item B, of the current Minnesota rules, and in 40 CFR § 280.43(g) of the federal UST rules.

**Subp. 52. Upgrade. (repealed)**

This definition is being repealed because this term was used in the existing rules to describe the process of bringing existing tanks into compliance with the original UST rules by 1998. Since that process is now complete, this definition is no longer necessary.

**(3) Part 7150.0090 NOTIFICATION AND CERTIFICATION.**

In this part, the MPCA is consolidating to the extent practicable all notifications and certifications that need to be made under the UST rules, eliminating duplicative or unnecessary notifications and certifications, clarifying certain notifications and adding certain new notifications. Notifications and certifications are currently located primarily in part 7150.0120.

The current part 7150.0120, subp. 5, requires owners and operators to ensure that persons who perform repairs on UST systems certify that repairs are performed in accordance with the listed standards and that these persons are certified contractors. This requirement was intended to ensure that major UST system upgrades, which were defined as “repairs”, were completed properly and on time. Upgrading activities were completed in 1998. Procedural standards for UST system repairs, and the requirement for repairers to be certified, remain in the rules. The MPCA believes it is reasonable to expect routine repairs to be properly performed without notice to the agency, so the notification requirement is being repealed to reduce the paperwork burden on contractors and owner/operators.

**Subp. 1. Prenotification.**

The MPCA is clarifying the requirements in subpart 1 to reflect the statutory requirement in Minn. Stat. §116.48, subd. 8, which requires tank owners and operators to notify the agency ten days prior to beginning activities rather than the 30 days which is specified in the existing rules. This statutory “ten day notice” requirement has been in effect for many years, and owners, operators, and installation contractors are familiar with it. The MPCA is clarifying that the ten day notice must be “in a manner prescribed by the Commissioner.” Currently, phone, fax, and mail notifications are accepted by the MPCA; these methods will continue in effect and the agency will have the authority to allow additional methods.

Regarding the activities subject to notification, the MPCA is clarifying that replacement of UST systems is a type of installation subject to notification, and is listing “permanent closure” and “change in service to storage of nonregulated substance” in this subpart, activities which are

currently subject to notification under part 7150.0410, subp. 2. The MPCA is adding examples of UST system components subject to installation pre-notification, including dispensers. Dispenser installation pre-notification is a new requirement which is reasonably necessary for the MPCA to ensure that the under-dispenser containment requirement is properly implemented by regulated parties. Finally, the MPCA is requiring pre-notification for the required inspections of internal tank linings, which is reasonably necessary in order to observe the inspections and ensure they are properly performed.

### **Subp. 2. Notification of installation, replacement, or change in status.**

In this subpart, the MPCA is adding the phrase “and operator” to clarify that the obligation to notify includes the tank operator in addition to the tank owner, as is the case with all tank notifications. The MPCA has added the phrase “or system component” to clarify that notification is also required to install or replace a part of a UST system, such as a new piping run. Finally, the phrase “change in status” is substituted for the phrase “change in service” to correspond to the broader wording of the statutory notification requirement.

### **Subp. 3. Certification by owners and operators.**

In the introductory wording to subps. 3 and 4, the MPCA has added language to clarify that certification by owners, operators, and installers is necessary upon replacement of UST systems, including dispenser replacement, and to require the signature of the owner, operator, or installer, which is already requested by the current certification form. Existing item B has been deleted since certification of any cathodic protection system is an element of proper UST system design, which is covered under item A.

### **Subp. 4. Certification by installers.**

The certifications in subp. 4(A)-(D), represent a compilation of existing installer certifications rather than new certifications, and are all required by the existing UST rules.

### **Subp. 5. Notification of cathodic protection testing.**

The MPCA is proposing in this new subpart that the results of cathodic protection testing, which is an existing requirement, be submitted within 30 days of testing on a form specified by the MPCA. This requirement is reasonable to monitor compliance with the testing requirements. For several years, the MPCA has had a voluntary test notification form which is now in widespread use by most testing contractors, and the information submitted is now entered into the tank registration database. The MPCA anticipates that making form submittal mandatory will not place any new burden on either contractors or tank owner/operators.

### **Subp. 6. Notification of tank sale.**

This is an amendment to existing part 7150.0120, subp. 6. The MPCA has added that the timing of the notification from the tank seller to the tank purchaser is prior to the closing of the sale. This requirement is reasonable to ensure that the purchaser is aware of the requirement that the



purchaser submit a notification to the MPCA within 30 days after closing of the sale, and so that the MPCA receives timely notification of changes in tank ownership.

#### **Subp. 7. Notification of tank purchase.**

In this new subpart, the MPCA has specified that the obligation to notify the MPCA of the change in status (new ownership) is the responsibility of the new owner rather than the previous owner. This requirement is reasonable to ensure that the MPCA receives timely notification of changes in tank ownership without confusion to the parties involved. The timing of notification is within 30 days after the transaction, which corresponds to the statutory requirement in Minn. Stat. § 116.48. The new owner must also certify that all tank operators, including any lessees, have read chapter 7150, the UST rules, and “have sufficient knowledge in the operation and maintenance of underground storage tank systems.” This requirement is reasonable to ensure that new operators are familiar with their duties under the UST rules, since there is no other training requirement for new operators at this time. The MPCA anticipates that in the near future an operator training program will be developed for Minnesota tank operators which complies with USEPA guidelines under the federal Energy Policy Act of 2005.

#### **(4) Part 7150.0100 PERFORMANCE STANDARDS FOR UNDERGROUND STORAGE TANK SYSTEMS.**

This part is intended to consolidate most of the requirements found in various subparts of the existing rules which relate to the general operation and maintenance of active UST systems. Subp. 1 is unchanged. Subps 2 through 6 are repealed in this part and transferred to part 7150.0205, subps. 1 through 5, where the design requirement and codes of practice for UST system tanks, piping, and spill and overfill prevention equipment are located. Subp. 8 is repealed since owner/operator certification requirements already exist in the proposed part 7150.0090, subp. 3.

#### **Subp. 7. Installation.**

The phrase “tanks and piping” is being replaced with the term “underground storage tank systems” because that term is a defined which includes not only the tanks and piping but also all appurtenances in UST systems, including drop tubes, submersible pumps, and dispensers. This term is a better term to describe the protections needed to insure proper installation of all components of a UST.

#### **Subp. 9. Compatibility.**

The requirement for compatibility is transferred to this subpart from existing part 7150.0220. The MPCA is adding the words “spill catchment basins, submersible pump sumps, and dispenser sumps” to the existing requirement for UST system compatibility between the stored substance and the container materials, to ensure that these spill and leak containment devices will maintain liquid-tightness even with frequent contact with regulated substances.

The MPCA is deleting the reference to the guidance document “Storing and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations” issued by the American Petroleum Institute (API), since methanol/gasoline blends are no longer used in Minnesota.

#### **Subp. 10. Repairs allowed.**

Most of the requirements in proposed subp. 10 were previously located in existing part 7150.0230.

Subpart 10(A) lists codes of practice for repairs to UST systems. Existing part 7150.0230, item A(4), references National Leak Prevention Association (NLPA) 631, “Spill Prevention, Minimum 10-Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection.” This document has not been revised or updated by its issuing association since 1988. A second guidance document, API 1631, “Interior Lining and Periodic Inspection of Underground Storage Tanks”, was updated in 2001. In order to avoid confusion among tank contractors and allow for the most current industry practices, it is reasonable to list a single, most up-to-date standard for use in the inspection and repair of internal linings, therefore NLPA 1631 is deleted. API 1632, “Cathodic Protection of Underground Petroleum Storage Tanks (1996)”, has been incorporated by reference to govern repairs to cathodic protected components of UST systems.

Existing part 7150.0230, item B, has been deleted as unnecessary since the codes of practice in item A apply to all tanks including fiberglass-reinforced plastic (FRP) tanks.

Subpart 10, item B, is a clarification of existing part 7150.0230, item C, which requires repair or replacement of piping under certain conditions. The MPCA is proposing to clarify the conditions for piping repair versus replacement, and the extent to which replacement must take place. In addition to the current requirement of replacement if a regulated substance has been released as a result of corrosion, the MPCA has determined that it is reasonable for owner/operators to replace metal piping if pitting-type corrosion is observed at any time, rather than wait until the piping has corroded through. The presence of this type of corrosion normally results in perforation of the piping, sometimes very quickly, causing potentially costly leakage of regulated substances which may never be discovered or not be discovered for some time, depending on the accuracy and frequency of the leak detection system.

In the situation where pitting-type corrosion of metal piping has occurred, it is reasonable to assume that similar soil conditions exist throughout the piping segment from tank to dispenser, which may eventually cause pitting at any point along the segment, so that the entire piping segment should be replaced rather than repair or replace only the corroded pipe section. Likewise, if a non-corrosion-related release has occurred, such as a faulty pipe sleeve, it is reasonable to presume that faulty materials or installation practices are likely to exist throughout the piping segment, so that the entire piping segment should be replaced.

The MPCA believes that certain exceptions to the replacement requirement are reasonable and appropriate. First, if piping is already secondarily contained, then the faulty section alone may

be repaired. Second, if a release is due to a known external, unique cause, then it is unlikely that this cause will recur throughout the piping segment. An example would be if piping is accidentally struck during nearby excavation.

Subp. 10, item C, revises existing part 7150.0230, item D. The new rule retains the requirement that requires tanks and piping that have been repaired be tightness tested within 30 days of completion of the repairs, but eliminates certain exceptions to post-repair testing. Existing item D(1), which allows internal inspection in accordance with the codes of practice in item A to substitute for tightness testing, has not been included in the proposed rule because item D(1) was intended to govern the upgrading of a tank with an internal lining. Since upgrading by internal lining of an existing tank has not been allowed since 1998, this exception is no longer applicable. Tightness testing after repair of an internal lining is addressed by proposed part 7150.0205, subp. 1(E)(1)(g). With regard to existing item D(2), which allows monthly release detection to substitute for tightness testing, the MPCA believes that this is no longer meaningful and should be deleted because all tanks are now subject to monthly release detection using an approved method, so it is reasonable to delete this exception. The proposed wording clarifies that automatic tank gauges that can run a test at 0.1 gallons per hour may be used to meet the tightness testing requirement for tanks.

Subp. 10, item D, changes the phrase “cathodically protected underground storage tank system” in existing part 7150.0230, item E, to read “cathodic protection system,” to clarify that the cathodic protection system must pass a cathodic protection test only if the repairs were made to the cathodic protection system itself, rather than to the tank or piping.

Subp. 10, item E, clarifies what the MPCA believes is current industry practice, which is that if repairs to a cathodic protection system become necessary (i.e. the system fails to pass a cathodic protection test) then the repairs must be performed by a cathodic protection expert as defined in these rules. It is reasonable to require the same level of technical expertise for the repair of a system, as for the installation of that system.

#### **Subp. 11. Spill and overflow release prevention.**

The requirements for spill and overflow control have been transferred unchanged from existing part 7150.0200 to this subpart.

#### **Subp. 12. Sump and basin maintenance.**

Spill catchment basins around tank fill pipes, to contain drips and spills during tank filling operations, have been required for new installations since 1991. Inspections of UST facilities by MPCA inspectors in recent years have shown a very high incidence of spilled substances remaining in these sumps, and even more frequently the presence of water, dirt, and debris, usually due to manhole covers that are not sealed. When submersible pump sumps and dispenser sumps are present, a similar rate of failure to monitor the sump and clean out foreign materials has been observed. Either water or petroleum in significant quantity will reduce the space in the sump or basin available to contain a spill, leading to overflow, and prolonged submersion in water or petroleum can cause leak detection equipment and other devices located in the sump or

basin to lose function. Dirt and debris as well may damage exposed equipment and piping and promote corrosion. To avoid these consequences, it is reasonable to require tank owners and operators to maintain sumps and basins substantially free of dirt, debris, standing water, and regulated substances, which would typically be observed during the monthly sump and basin checks. Between monthly checks, this requirement will clarify the duty to immediately clean up any spills that occur during tank filling, rather than leave the spill under the assumption that it is contained and harmless.

**Subp. 13. Shear valves.**

Anchoring of shear valves underneath motor fuel dispensers is a standard installation requirement to enable the devices to function properly upon impact to the dispenser, and is a requirement under the Minnesota Fire Code to reduce the risk of fire and explosion. Since unanchored shear valves may allow serious leakage from pressurized piping, it is reasonable to require anchoring under the UST rules to mitigate environmental damage. This requirement already exists in the Minnesota Fire Code so no new regulatory burden will be created. By putting it in the UST rules, the MPCA will assist the State Fire Marshall in monitoring this good practice.

**Subp. 14. Drop tubes.**

Drop tubes are currently required by the Minnesota Fire Code for tanks storing flammable liquids, to eliminate splash filling which causes the creation of flammable vapors during filling of the tank. Drop tubes have been required since 1991 under the UST rules for all new tank installations by PEI RP100 (see existing part 7150.0100, item 7(B)), and for any tank which uses inventory control as a method of release detection (see part 7150.0330, subp. A(4)). The MPCA is clarifying that drop tubes are required for all USTs by specifying this in the rule text as a stand-alone requirement.

**(5) Part 7150.0205 DESIGN AND CONSTRUCTION.**

This part is intended to consolidate in one location the minimum design and construction requirements for UST systems that are necessary to prevent and contain leaks and spills. With the completion on December 31, 1998, of the original period of time allowed for upgrading of existing UST systems under the 1991 rules, these options now represent the range of allowable designs for all existing UST systems, containing either petroleum or hazardous materials, whether installed prior to 1991, between 1991 and 1998, or between 1998 and the present. In addition to the current design requirements for tanks, piping, and spill and overfill prevention equipment, and the codes of practice associated with this equipment, the MPCA has specified new requirements for secondary containment of dispensers and submersible pumps in this Part. The MPCA is deleting all wording related to the upgrading of UST systems that existed in 1991 (current part 7150.0110) since the deadline has now passed.

For UST systems installed after 1991, the existing corrosion protection requirements include an option for tanks (part 7150.0100, subp. 2(D)) or piping (part 7150.0100, subp. 4(C)) to be installed without corrosion protection if a corrosion expert had determined the site “not to be

corrosive enough to cause it to have a release due to corrosion during its operating life.” The MPCA considers that it would be difficult for a corrosion expert to reliably make this assessment for such a long period of time, and in any case an assessment should not be made without MPCA review and approval. The MPCA is not aware of any tank owner/operator that now uses these regulatory options, so it is reasonable to repeal these options. Since these options are being repealed, the applicable codes of practice (part 7150.0100, subp. 5(C)) and recordkeeping requirement (part 7150.0240, item B(1)) are likewise repealed. Tank owner/operators may still seek MPCA review and approval for such installations under the proposed part 7150.0205, subps. 1(F) and 3(E), of the new rules.

### **Subp. 1. Tanks.**

In this subpart, the MPCA has identified the five allowable corrosion protection methods for tanks storing regulated substances. All five methods have been allowed for newly constructed and existing petroleum tanks by the current rules since 1991. One method (secondary containment tank) has been and continues to be the sole allowable method for underground storage of hazardous materials.

The MPCA is requiring that all new and replacement petroleum tanks comply with the secondary containment method of corrosion protection. Regulated tanks must meet one of the secondary containment designs listed in subp. 1(D) if they are placed into the ground after December 22, 1998. Tanks placed into the ground prior to that date may use any design permitted under the existing rules, even if other aspects of the complete installation (backfilling, paving, etc) are completed after that date. The requirement applies not only to the construction of new facilities (i.e. installation where no previous tank existed), but also where new tanks are added to enlarge existing tank facilities, as well as where existing tanks are being replaced for any reason.

The requirement for secondary containment of tanks, piping and dispensers is one of two options given to the states by the federal government in the Energy Policy Act of 2005 to protect groundwater from contamination. The second option, to require evidence of financial responsibility for manufacturers and installers as well as requiring certification for installers, has not been adopted for a number of reasons. Minnesota has had a program to certify UST system installers for many years. Minnesota has extensive groundwater resources of which a significant portion serve as rural and municipal drinking water supplies. Secondarily contained UST systems directly prevent groundwater contamination by containing any release and allowing for detection of the release by the tank owner/operator. Financial assurance does not prevent, contain, or detect any release to environment, rather it provides a mechanism for funding attempts to remediate releases that have occurred. Contamination of drinking water aquifers, when it has occurred, is expensive and difficult to fully remediate and return the resource to usable condition. The MPCA believes that investment in prevention of groundwater contamination is significantly more cost effective than allowing contamination and attempting to remediate it.

In addition, the MPCA believes that a financial responsibility requirement for manufacturers and installers would be difficult to implement and oversee. Criteria for financial instruments such as insurance policies and letters of credit would need to be developed, and executed financial

documents would need to be reviewed and approved for legal adequacy, rejected and resubmitted, filed and maintained. The period of time for coverage is not specified, and it is unlikely that any insurer would provide coverage for the life of the tank, so instruments will expire and need to be renewed or replaced. The federal standard for manufacturer and installer responsibility for corrective actions is that the corrective actions relate to a release caused by faulty manufacture or faulty installation. Several decades of managing petroleum remediation in Minnesota demonstrates that when contaminated soil or contaminated groundwater is identified, the cause of the contamination is almost never certain, the source of the leak often cannot be identified, and even if it could be it would be difficult to show a manufacturing or installation defect after years of the tank being underground. Even the facility that the leak comes from may not be conclusively determined. In this situation, financial institutions will be unwilling to pay on their instruments without a clear showing of responsibility, producing extensive administrative costs in investigation of releases, and frequent litigation. If the state chooses not to pursue collection in the face of these administrative hurdles, then the goal of financial responsibility, to hold manufacturers and installers accountable, will be lost.

The MPCA has reviewed the USEPA's "Grant Guidelines to States for Implementing the Secondary Containment Provision of the Energy Policy Act of 2005," and believes that these revisions to Minnesota's UST rules fully comply with the minimum requirements of the Energy Policy Act of 2005 and the USEPA Guidelines. These revisions exceed the minimum requirements in certain respects. The Act required secondary containment at a minimum for new and replacement UST systems located "within 1,000 feet of any existing community water system or any existing potable drinking water well." In Minnesota, surface water and groundwater resources are extensive and located throughout the state. The state has a long tradition of protecting the quality of these water resources, not merely surface and groundwater presently used as drinking water supplies but all water resources. Part 7060.0400 declares that all underground waters of the state are classified for use now and in the future as a source of drinking water, and part 7160.0200 states that it is the policy of the MPCA to consider the actual and potential use of underground waters for drinking water as the highest priority use and to provide maximum protection to all underground waters. With respect to surface waters, part 7050.0185, subp. 1, declares that it is the policy of the state to protect all waters from significant degradation and to maintain the level of water quality to protect its uses. Many surface water resources are currently used for other important purposes such as recreation, and may be needed for drinking water in the future. The federal definition of "near" (within 1,000 feet) may not be adequately protective in some instances because the ability of a tank leak to migrate is dependent on many hydrogeologic parameters.

If tank design requirements were to depend on definition and location of protected resources, then there would be many practical aspects of implementing such a requirement so that tank owner/operator can understand how to comply. If identification of the protected resources and measurement of distance is the responsibility of the tank owner/operator, and the owner/operator's decision is not accurate, then this situation is not easily remedied after the tank purchased and in the ground. If this is the responsibility of the MPCA, an accurate statewide database must be generated, maintained, and easily accessible to tank owner/operators, a considerable task. If a community or private well were to be installed later near an existing

single-walled tank, the question of whether to require an upgrade of the tank(s) would have to be answered.

The MPCA has concluded that a location-based requirement would be difficult to implement and enforce, and, in fact very few UST facilities are not located near enough to any water resource of concern such that a leak from a non-secondarily contained tank or piping could not reach the resource. Therefore it is reasonable to apply the secondary containment requirement consistently to all locations in the state.

The MPCA considered whether UST systems installed or replaced on or before December 22, 2007, should be required to be replaced with secondary containment by a fixed deadline, even if such systems had not failed or were otherwise in need of replacement. The MPCA has concluded that it is reasonable to allow such systems to continue in service using their currently permitted corrosion protection and release detection methods due to the considerable cost of replacement, since tanks and piping could not be upgraded with secondary containment, but must be entirely replaced. Even if certain other tanks at an existing facility are being added or replaced, the MPCA does not propose to require replacement of all of the tanks that are still in working condition and compliant with MPCA rules. The MPCA also considered whether a non-contained tank which is in need of repair should be replaced instead. The MPCA concludes that if a tank repair can be properly performed by a qualified tank contractor which will return the tank to functioning, compliant condition, the tank need not be replaced. An exception to this rule with respect to internally lined tanks is discussed below.

No changes have been made to the design criteria for three of the current allowable corrosion protection methods: fiberglass-reinforced plastic (FRP) tank (subp. 1(A)); steel tank with cathodic protection (subp. 1(B)); and steel tank with FRP cladding or jacketing (subp. 1(C)). Tanks installed on or before December 22, 2007, may utilize these methods and must meet the existing design requirements. No changes as well have been made to the provision in subp. 1(F), which allows a tank owner/operator to seek approval from the MPCA for an alternative tank corrosion protection method.

The design requirements for secondary containment tanks (subp. 1(D)) have been significantly clarified, since all new and replacement tanks after December 22, 2007, must utilize this corrosion protection method. Subp. 1(D) lists the commercially available designs of which the MPCA is aware that meet the definition of secondary containment found in these rules. These construction designs include: double-walled FRP; double-walled steel with cathodic protection of the outer wall; double-walled steel with an FRP jacket or cladding; and single-walled steel with an FRP jacket designed to contain and detect a leak through the inner steel wall. This list need not be exhaustive; other designs unknown to the MPCA or which become available in the future which meet the secondary containment definition may be approved under the provisions of subp. 1(F) All secondary containment designs must include integral containment and detection of leaks which meets the release detection criteria in part 7150.0330, subp. 6. When an existing tank is replaced with a secondary containment tank, it is reasonable to require the existing piping to be replaced with secondary containment piping as well because the excavation zone for the tank normally will include a substantial portion of the appurtenant piping and it is

most cost effective to replace existing piping with new piping along the entire pipe run rather than tie in new piping to the older piping.

No changes have been made to the design criteria for existing internally lined tanks. Subp. 1(E)(1) provides significant clarification of the requirements for conducting periodic internal inspections of these tanks. Since 1991, the current rules have required such inspections within ten years after initial lining of the tank and every five years after that. The MPCA is aware of one case of lining failure in Minnesota, and believes there is substantial evidence from other states that many internal linings are subject to deterioration and failure over time from both internal and external causes. If the internal lining fails, the UST is likely to fail from external corrosion since these tanks do not normally have cathodic protection systems. Extensive external corrosion can itself lead to lining failure by weakening the structural support, causing disbonding and cracking. Lining failure may be due to a number of causes. The MPCA has reviewed many inspection reports and, due to the inadequacy of these reports, cannot determine the frequency of problem conditions, evidence of specific failure modes and causes, or even whether the installation and inspection standards have been properly followed.

At this time, the MPCA does not have enough evidence to determine conclusively that internal linings have a high rate of failure and should be permanently closed. It is reasonable, therefore, to clarify the requirements for conducting internal inspections in order for the MPCA to be able to determine their failure rate and causes, and to document that existing linings continue to be maintained in functioning condition. The MPCA considered increasing the frequency of lining inspections for older tanks, but believes that an emphasis on the quality of the inspections will be adequate to assure integrity during the current five year interval.

Subp. 1(E)(1), units (a) - (i), specify the minimum requirements which are reasonably necessary for adequate internal inspections. Inspections must be in accordance with API 1631, which provides the most up-to-date guidelines for lining installation and inspection. (See part 7150.0100, subp. 10(A), for additional discussion.) Since there is no industry, federal, or state program to certify UST internal lining inspectors, two options for assuring inspector qualifications are given; inspectors may be approved by the manufacturer of the lining if an approval process exists. Otherwise inspectors must be qualified by reason of training and experience in the application and inspection of the type of internal lining to be inspected. In order for the MPCA to observe inspections as necessary, either the tank owner/operator or the inspector must provide prior notification to the Agency of the inspection, using the same time frame and procedures as with other UST program pre-notifications. In subp. 1(E)(1)(d), the MPCA has identified the principal required inspection steps and techniques to evaluate the condition of the lining and the structural condition of the tank. These correspond to the elements of API 1631 and with good practices currently used by Minnesota lining inspection companies. Similar to several other states such as Pennsylvania which have addressed the issue, the MPCA will not allow video camera observation alone to meet the inspection requirement as the sole inspection technique. Video observation may be able to document a severe lining failure that has already occurred, but it is not sensitive enough to document evidence of partial or impending failure as is a manned entry in conjunction with techniques such as holiday testing.



Subp. 1(E)(1)(f) allows minor abnormal conditions in the internal lining to be repaired, and some examples are given. The MPCA intends that these conditions fall short of being extensive or severe enough to constitute lining failure, that the repairs can return the lining to substantially the original condition, and that the inspector must reasonably anticipate that the lining will not fail prior to the next internal inspection. Subp. 1(G)(1)(g) requires a third-party tightness test to be conducted after each internal inspection to ensure that very small leaks have not been missed by the basic visual inspection. In subp. 1(E)(1)(h), the minimum elements of a written inspection report are specified, which will reasonably enable the MPCA to document that the inspection was properly performed and the lining conditions found are fully documented. Reports must be submitted to the MPCA within 30 days of completing the inspection. These reports, combined with MPCA inspector observations, will permit the MPCA to evaluate whether existing and replacement linings should be allowed on a permanent basis.

### **Subp. 2. Codes of practice for tanks.**

Subp. 2 lists the industry codes of practice applicable to each corrosion protection method. The MPCA has updated the existing required codes to specify the most current title and numbering. In Subp. 2(D), the MPCA has identified three codes; UL 58, UL 1746, and STI R012, governing the design and installation of secondary containment tanks. These codes were developed by the same nationally recognized associations; Underwriters Laboratories and the Steel Tank Institute, as many of the other codes incorporated by reference in these rules for many years.

### **Subp. 3. Piping.**

In this subpart the MPCA has identified the four allowable corrosion protection methods for piping appurtenant to tanks storing regulated substances. All four methods have been allowed for newly constructed and existing petroleum piping by the current rules since 1991. One method (secondary containment piping) has been and continues to be the sole allowable method for hazardous materials piping.

The MPCA is requiring that all new and replacement petroleum piping comply with the secondary containment method of corrosion protection. Regulated piping must meet one of the secondary containment designs listed in subp. 3(D) if it is placed into the ground after December 22, 2007. Piping placed into the ground prior to that date may use any design permitted under the existing rules, even if other aspects of the complete installation (backfilling, paving, etc) are completed after that date. The requirement applies not only to the construction of new facilities (i.e. installation where no previous tank or piping existed) but also where new tanks are added to enlarge existing tank facilities. This requirement applies where existing piping is being replaced for any reason, except in the case where a small amount of piping is replaced in connection with a repair, which is further discussed under the definition of “repair.”

The secondary containment requirement does not apply to the installation or replacement of “safe suction” piping meeting the design requirements of part 7150.0300, subp. 6(B)(2). Properly designed safe suction piping is intended to allow the regulated substance to drain back to the tank by gravity flow when the pumps are off, and for this reason is exempt from release detection requirements under the current rules. It is reasonable to conclude that the likelihood

and consequences of a release are much lower for this type of piping and do not justify the added expense of secondary containment piping.

The general rationale for the piping secondary containment requirement is further discussed above under subp. 1.

No changes have been made to the design criteria for three of the current allowable corrosion protection methods: fiberglass-reinforced plastic (FRP) piping (proposed subp. 3(A)); steel piping with cathodic protection (proposed subp. 3(B)); and steel piping with FRP cladding or jacketing (proposed subp. 3(C)). Piping installed on or prior to December 22, 2007, may utilize these methods and must meet the existing design requirements. No changes as well have been made to the provision in proposed subp. 3(E), which allows an owner/operator to seek approval for an alternative piping corrosion protection method.

The design requirements for secondary containment piping have been significantly clarified, since most new and replacement piping after December 22, 2007, must utilize this corrosion protection method. Proposed subp. 3(D) lists the commercially available designs of which the MPCA is aware that meet the definition of secondary containment found in these rules. These construction designs include: double-walled FRP; double-walled steel with cathodic protection of the outer wall; double-walled steel with an FRP jacket or cladding; single-walled steel with an FRP jacket designed to contain and detect a leak through the inner steel wall; and double-walled non-metallic flexible piping. This list need not be exhaustive; other designs unknown to the MPCA or which become available in the future which meet the secondary containment definition may be approved under the provisions of subp. 3(E). All secondary containment designs must include integral containment and detection of leaks which meets the release detection criteria in proposed part 7150.0340, subp. 4.

#### **Subp. 4. Codes of practice for piping.**

Subp. 4 lists the industry codes of practice applicable to each corrosion protection method. The MPCA has updated the existing required codes to specify the most current title and numbering.

#### **Subp. 5. Spill and overfill prevention equipment.**

The requirements in this subpart are located in existing part 7150.0100, subp. 6. There have been no changes to the language, other than to add wording that high level alarms must be “audible to the transfer operator.” In recent years, the MPCA has inspected a number of retail service stations where the high fill level alarm function is tested and the system fails to sound. In some cases the alarm does sound but only inside the building and not within the hearing of a person located at the transport vehicle. In order for the type of overfill prevention system to be effective the alarm must be immediately audible to the transport operator, who controls the fill manually in the absence of an automated shutoff device. This is not a new requirement but is implied by the existing requirement in order for an alarm to serve as overfill prevention. Tank operators normally meet the requirement by installing a horn on the building exterior and maintaining the horn in a functioning condition.

### **Subp. 6. Submersible pumps.**

Recent inspections of retail service stations UST systems have shown a high frequency of petroleum drips and spillage from the submersible pump head. This is also the typical location of the automatic tank gauge, which is also prone to leakage. Since 1991 most new tanks have an impermeable spill catchment basin installed around the drop tube to contain spillage. However, the submersible pump is located elsewhere on the tank and may not have such a basin or sump. Without pump head secondary containment, the spilled product goes into the soil around the tank. Significant leakage may impact nearby ground and surface waters.

The MPCA is requiring that all new and replacement submersible pumps be installed with secondary containment, such as an impermeable sump, around the pump head to contain leaks and spills from the pump, gauges, and associated piping. The requirement is effective December 22, 2007, to coordinate with the timing of the tank and piping secondary containment requirement. It is reasonable to require that containment sides, bottom and points of penetration must be constructed of liquid tight materials, such as plastic, fiberglass, or other synthetic materials that are compatible with the stored substance, in order to effectively hold any leaked substance until it can be detected and removed. Concrete is not acceptable due to cracking and porosity over time.

The MPCA has been unable to identify an industry standard for design of submersible pump containment. However, the MPCA proposes to list the document ULC/ORD-C107.21-1992 as recommended guidance, since the subject of the document (under-dispenser containment) is very similar.

### **Subp. 7. Dispensers.**

The MPCA is requiring that all new dispensers of regulated substances, and certain replacement dispensers, have under-dispenser secondary containment. Dispensers must have under-dispenser containment if they are installed or replaced after December 22, 2007, to coordinate with the timing of the tank and piping secondary containment requirement.

The dispenser containment requirement applies to the construction of entirely new UST systems, as well in the case where a new dispenser and new piping are installed in a location with no existing dispenser and connected to an existing UST system.

In the case of replacement dispensers, the requirement only applies “where work is performed beneath any shear valves or check valves or on any flexible connectors or unburied risers.” The MPCA intends that the requirement would not apply if a dispenser is replaced by connecting the new dispenser to the existing piping at the shear valve and/or check valve without further equipment replacement. When an existing dispenser is replaced, a shear valve or check valve may be also replaced without requiring under-dispenser containment, so long as other equipment used to connect the dispenser to the existing piping is not being replaced. In this situation, the MPCA believes that installation of under-dispenser containment would add considerably to the scope and cost of the project.

The requirement does apply during a dispenser replacement if the full run of existing piping connecting the dispenser to the UST is also being replaced. The requirement also applies where an existing dispenser is replaced, if any of the equipment used to connect the dispenser to existing piping is replaced, including unburred flexible connectors or risers or other transitional components that are beneath the dispenser. It is reasonable to require containment in these cases because the tank owner/operator has chosen to perform extensive work beneath the dispenser which allows for under-dispenser containment to be installed in a practical and cost-effective manner.

Finally, it should be noted that even if under-dispenser containment is required during replacement of an existing dispenser, this does not mean that all existing piping connecting the dispenser to the tank must be replaced.

The general rationale for the dispenser secondary containment requirement is further discussed above under subp. 1. The MPCA believes that these revisions to Minnesota's UST rules fully comply with the minimum requirements of the federal Energy Policy Act of 2005 and the USEPA Guidelines. These revisions exceed the minimum federal requirements in one respect. Dispenser containment is being required for all regulated UST systems, not merely for motor fuel dispensing systems. The risks to the waters of the state from leaking dispensers are substantially similar for all petroleum and hazardous materials substances.

Dispenser sumps must be designed to contain releases from any valves, fittings, or piping inside or below the dispenser until they can be detected and removed. As with submersible pump sumps, dispenser sump sides, bottom, and points of penetration must be constructed of liquid tight materials, such as plastic, fiberglass, or other synthetic materials that are compatible with the stored substance. Concrete is not acceptable due to cracking and porosity over time.

The MPCA proposes to incorporate the reference ULC/ORD-C107.21-1992, Under-Dispenser Sumps, developed by Underwriters Laboratory of Canada, an internationally recognized association, for design of dispenser containment.

## **(6) Part 7150.0215 OPERATION AND MAINTENANCE OF CATHODIC PROTECTION.**

Requirements in the current rules for the operation and maintenance of cathodic protection systems located at part 7150.0210 have been grouped together in this part. Subp. 1 states the general principle that all systems must provide ongoing, continuous protection to any buried metal components in contact with the ground. Subp. 2 lists testing requirements for sacrificial anode type systems, and subp. 3 lists testing requirements for impressed current type systems. For the most part, cathodic protection testing requirements do not change in these rules.

### **Subp. 2 Sacrificial anode systems.**

For sacrificial anode systems, the MPCA proposes to add an exemption from the requirement that systems be tested by a qualified cathodic protection tester. If the system is designed with an external test station, it is reasonable to allow the tank owner, operator, or another designee

without special cathodic protection training to perform the testing, since testing is relatively uncomplicated and can be performed by attaching a voltmeter and comparing the numerical output to the minimum required output. If the system is not performing at the minimum level, a trained professional (a corrosion expert as defined at existing part 7150.0030, subp. 13, who is also certified in accordance with chapter 7105) must then be hired to repair or replace the system. The tank owner/operator will still need to keep a written record of test results per proposed part 7150.0450, subp. 3. Tank owner/operators doing their own testing should retain original records showing that such external test stations were designed to test all components of the entire UST system, including all piping segments. A cathodic protection tester would be required to test system elements not covered by external test stations.

### **Subp. 3 Impressed current systems.**

For impressed current systems, the MPCA has clarified that the rectifier must be read at least every 60 days to ensure continued current, and the voltage and amperage must be recorded. This is a current requirement under NACE RP0285-2002 which needs to be clearly stated. Rectifier reading is not highly technical and may be done by the tank owner/operator, as is currently true, whereas periodic system testing continues to require a corrosion expert. The MPCA is proposing to increase the frequency of impressed current system testing from every three years to every year, based on the more complicated nature of these systems and the fact that most of them were installed as upgrades to existing tanks.

## **(7) Part 7150.0300 RELEASE DETECTION.**

This part states the general principles of release detection for UST systems (subp. 1) and the duty of notification in case of an actual release (subp. 2). Subps. 3 and 4, which addressed the schedule of compliance with release detection requirements for existing (pre-1991) tanks, are repealed as unnecessary. This part identifies in one location the specific methods which will be allowed to detect releases from tanks (subp. 5), piping (subp. 6), and sumps and basins (subp. 7). With the completion on December 31, 1998, of the original period of time allowed for upgrading of existing UST systems under the 1991 rules, these methods now represent the range of allowable methods for all existing UST systems, containing either petroleum or hazardous materials, whether installed prior to 1991, between 1991 and 1998, or between 1998 and the present. The MPCA has consolidated the various allowable methods in existing parts 7150.0300, .0310, and .0320, and deleted wording related to the phasing-in of new methods. In the rare instances where hazardous materials requirements vary from petroleum requirements, the difference is noted.

### **Subp. 5. Tanks.**

This subpart specifies that all regulated tanks must be monitored for releases at least every 30 days using one of the following methods or combination of methods: automatic tank gauging combined with inventory control (subp. 5(A)); interstitial monitoring (subp. 5(B)); inventory control combined with five year tightness testing, limited to ten years after installation (subp.5(C)); manual tank gauging combined with five year tightness testing, limited to 1,000-2,000 gallon capacity tanks within the first ten years after installation (subp. 5(D)); manual tank

gauging, limited to less than 1,000 gallon tanks (subp. 5(E)); and other methods if specifically approved by the MPCA (subp. 5(F)).

All of these methods have been in use since at least 1991. The allowable tank release detection methods must be conducted according to the criteria for each method in part 7150.0330. No additional allowable methods are proposed at this time, and there are no changes proposed to the conditions of use for the currently allowed methods.

The following methods of monthly release detection for tanks in the current rules are repealed: soil gas vapor monitoring; groundwater monitoring; interstitial monitoring of a secondary barrier within the excavation zone; and interstitial monitoring of an internally fitted liner. The MPCA is not aware of any UST systems in the State which have utilized these methods of release detection over the almost 20 year history of the UST program, so it is reasonable to eliminate these methods as routine release detection options for tanks. Tank owner/operators retain the ability to request MPCA review of these types of methods, and others, pursuant to subp. 5(F).

#### **Subp. 6. Piping.**

This subpart specifies that all regulated piping must be monitored for releases at least every 30 days using one of the following methods or combination of methods depending on the type of piping: pressure piping must employ an automatic line leak detector and have either an annual line tightness test or, in the case of secondarily contained piping, perform monthly interstitial monitoring (subp. 6(A)); suction piping must either have a line tightness test every three years or, in the case of secondarily contained piping, perform monthly interstitial monitoring (subp. 6(B)). So-called “safe suction” piping, using a check valve system to keep piping empty when not in use, does not require release detection if the specified criteria are met. Other methods may be used if approved by the MPCA (subp. 6(C)). Piping that may be appurtenant to a regulated UST but which does not routinely contain regulated substances, for example, a vent pipe, does not need to be monitored for releases.

All of these methods have been in use since at least 1991. The allowable piping release detection methods must be conducted according to the criteria for each method in part 7150.0340. No additional allowable methods are proposed at this time, and there are no changes proposed to the conditions of use for the currently allowed methods. No methods have been repealed.

#### **Subp. 7. Sump and basin monitoring.**

In addition to the current release detection requirements for tanks, piping, and spill catchment basins, new monitoring requirements for dispenser sumps and submersible pump sumps are specified in subp. 7. All dispenser sumps, spill catchment basins, and submersible pump sumps must be visually checked for releases, and for presence of stormwater and debris, on a monthly basis. Sumps and basins may also be equipped with continuous release detection sensors at the discretion of the tank owner/operator, for more immediate leak detection; nevertheless a monthly visual check must still be performed. It is reasonable to require simple monthly sump and basin checks, despite the presence of a sensor, in order to look for problem conditions, such

as presence of stormwater, which an automatic sensor would not detect and which might actually hinder the performance of the sensor.

At the time of monthly sump and basin checks, conditions such as water and debris in the sump must be remedied, and any leaked product must be cleaned up and the source of the leak located and repaired. Any automatic sump and basin sensors need to be periodically checked for functionality. It is reasonable to specify that sump sensors be checked on an annual basis, to correspond with a need for and frequency of functionality testing of similar equipment, such as sensors located in the interstitial space of secondarily contained tanks, and mechanical line leak detectors.

#### **(8) Part 7150.0330 METHODS OF RELEASE DETECTION FOR TANKS.**

This part describes the specific procedures for conducting tank release detection according to each method allowed under part 7150.0300, subp. 5. No changes to current procedures are proposed for the following methods: inventory control (subp. 2), manual tank gauging (subp. 3), tank tightness testing (subp. 4), automatic tank gauging (subp. 5), or to the procedures for approving alternate methods (subp. 7).

##### **Subp. 6. Interstitial monitoring.**

The proposed criteria for interstitial monitoring of secondarily contained tanks (subp. 6) are substantially equivalent to the requirements found at part 7150.0330, item H(1), of the current rules, and have been reworded for clarification. Two methods of release detection are allowed, which are the two most common methods now used to check for a release in a secondarily contained tank. Monitoring may employ a continuous automatic sensing device which can detect the presence of the regulated substance in the interstitial space between the two tank shells and signal the tank owner/operator. In the alternative, on a monthly basis tank owner/operators may manually perform some procedure based on the particular tank design, typically by checking a sump area, which can detect the presence of the regulated substance in the interstitial space between the two tank shells. If a continuous detector is used, it is reasonable to require that the tank owner/operator verify proper functionality on an annual basis, similar to functionality testing of other devices. It is also reasonable that the interstitial space be maintained free of water or debris, to the extent that the water or debris might interfere with the detection of a leak.

#### **(9) Part 7150.0340 METHODS OF RELEASE DETECTION FOR PIPING.**

This part describes the specific procedures for conducting piping release detection according to each method allowed under part 7150.0300, subp. 6. No changes to current procedures are proposed for line tightness testing (subp. 3) or to the procedures for approving alternate methods (subp. 5). The existing part 7150.0340, item C, which references the use of any applicable tank methods listed in existing part 7150.0330, items F through I, has been deleted, since the soil vapor, groundwater monitoring, and secondary barrier methods for tanks have been deleted, interstitial monitoring is now located in subp. 4, and approval of alternate methods is now located in subp. 5.

## **Subp. 2. Automatic line leak detectors.**

The MPCA is clarifying the procedures for testing of automatic line leak detectors (subp. 2). Annual testing of detectors has been required since 1991, however the only procedure specified is to follow the manufacturer's requirements. Line leak detectors have become a very common method for piping release detection in UST systems. In the course of many facility inspections in recent years, the MPCA is often unable to document that detectors are functioning properly. Owner/operators may be unaware of the need to test the detectors, and even if aware are not familiar with manufacturer recommendations for testing the equipment because it was installed by a third party contractor. To save money many owner/operators attempt to test detectors themselves, for which they are generally unqualified. The MPCA finds that it is reasonable to specify detector testing procedures to ensure that this essential equipment functions properly, since piping leaks are the most common type of leakage in UST systems.

Detector testing may be performed by person qualified in any one of three ways: by a person who is a MPCA certified contractor, or by a person approved by the manufacturer to test the specific device, or by a person otherwise qualified by training or experience to test the specific device. Detectors may not be tested by tank owner/operators or their employees, unless they are qualified in at least one of these ways. In addition to compliance with the manufacturer's requirements, testing must involve creating a physical leak in the line, typically by opening a drain point along the line, which the device must be able to detect. The device must be able to detect a physical leak as small as three gallons per hour within one hour, which is the original minimum design specification for automatic line leak detectors.

## **Subp. 4. Interstitial monitoring.**

The criteria for interstitial monitoring of secondarily contained piping (subp. 4) are not specifically described in the current rules, other than that the method must be able to detect a release through the inner wall in any part of the piping that routinely contains product. Since integral double walled tanks and piping use the same design principles of containment and detection of leaks, the MPCA finds that is reasonable to require similar release detection criteria for piping as is required for tanks under proposed part 7150.0330, subp. 6. Two methods of release detection are allowed, which are the two most common methods now used to check for a release in a secondarily contained tank. Monitoring may employ a continuous automatic sensing device which can detect the presence of the regulated substance in the interstitial space between the two pipe shells, or in a sump, and signal the tank owner/operator. In the alternative, if the piping is installed so that the interstitial space drains by gravity to the submersible pump sump or to another sump, then on a monthly basis tank owner/operators may visually check the sump area for the presence of the regulated substance, which would be done anyway as part of the required monthly sump and basin monitoring. If a continuous detector is used, the detector must be verified for proper functionality on an annual basis. The piping interstitial space and any sumps must be maintained free of water or debris to the extent that the water or debris might interfere with the detection of a leak.



## **(10) 7150.0400 TEMPORARY CLOSURE.**

### **Subp. 1. Requirements.**

The MPCA is clarifying the current requirement for tank owner/operators storing flammable and combustible substances to comply with state fire regulations related to temporary closure in addition to MPCA temporary closure requirements, by deleting the specific rule citation and changing the reference to “the most current Minnesota Fire Code.”

### **Subp. 2. Tanks out of service less than 90 days.**

The MPCA is clarifying that subp. 2 applies to tanks temporary closed for less than 90 days. The MPCA is also clarifying the definition of “empty” for purposes of temporary closure to delete the volumetric measurement of allowable residue (0.3 percent by weight of total capacity of the UST system) and rely solely on the depth measurement of allowable residue (one inch at any point). This is reasonable because the alternate volumetric measurement is unnecessary and much more difficult for both tank owner/operators and MPCA inspectors to determine.

### **Subp. 3. Tanks out of service 90 days.**

In addition to three current requirements, i.e. maintain any cathodic protection system, leave vent lines open, and cap other appurtenances, the MPCA is adding two new conditions for tanks temporary closed for 90 days or more, with the purpose of giving more flexibility to tank owner/operators to take tanks out of service for short periods of time up to 90 days, in return for meeting more formal temporary closure requirements if the tank inactivity goes beyond 90 days. Whereas emptying the tank is an option during the first 90 days of inactivity, after 90 days the tank must be emptied. This is reasonable because of the internal corrosive activity of water and residue that continues over time, in a situation where tank owner/operators will tend to cease actively monitoring the tank as part of daily operations. In addition, the MPCA is specifying that change in status notification must occur at 90 days, at which point the temporary closure has become a longer term situation and notification will allow the MPCA to check on the facility if needed. Conversely, notification need not be made for short-term out of service situations lasting less than 90 days, as it is reasonable to allow owner/operators more flexibility when the MPCA has little need for this information.

### **Subp. 4. Tanks out of service one year.**

Subp. 4 has been edited due to unclear wording, but the basic requirement remains unchanged. Tanks must be permanently closed at the end of one year, unless the tank owner/operator applies for and receives a written approval of extension of the temporary closure period, a process that gives the MPCA an opportunity to verify that the owner/operator is in compliance with all conditions of temporary closure. The MPCA is making clear that any extension must include the requirement to maintain any cathodic protection system in functioning condition. Otherwise the tank may rapidly degrade from exterior corrosion, and the expectation of temporary closure, as opposed to permanent closure, is that the tank will be returned to active service at some point. The MPCA is specifying that in order to reactivate the tank once an extension has been granted,

the tank owner/operator must receive written approval from the MPCA. This approval will be based on MPCA verification of the tank's compliance with the applicable requirements of this chapter.

**Subp. 5. Tanks out of service five years.**

Subp. 5 is a new provision that limits any extension granted under subp. 4 to a total of five years of temporary closure status. At the end of that time, if the MPCA has not approved its return to service under subp. 4, the tank owner/operator must permanently close the tank pursuant to part 7150.0410. It is reasonable to require an end to the period of temporary closure, because the significant risks of corrosion and equipment degradation during prolonged inattention to the UST system, even if tanks have proper temporary closure measures, at some point will outweigh the benefit of allowing tank owner/operators flexibility to mothball tanks while reorganizing or selling the business. Five years is a reasonable period of time to allow for major business change or resale.

**(11) Part 7150.0410 PERMANENT CLOSURE AND CHANGE IN STATUS TO STORAGE OF NONREGULATED SUBSTANCES.**

Only a few modifications are proposed to the procedures for permanent closure and change in status to storage of nonregulated substances. As with temporary closure, the MPCA is clarifying in subp. 1 the current requirement that tank owner/operators storing flammable and combustible substances comply with state fire code regulations related to permanent closure in addition to MPCA permanent closure requirements, by deleting the specific rule citation and changing the reference to "the most current Minnesota Fire Code." In subps. 3 and 4, the MPCA is clarifying in the rule text that the permanent closure requirement to empty and clean the UST system and either remove it from the ground or fill it with an inert substance, applies not only to the tank itself but also to all appurtenant piping. This procedure is specified in all of the referenced standards for closure, but the MPCA believes it will be helpful to make this particular duty clear in the rules.

**(12) Part 7150.0420 SITE ASSESSMENT.**

In this part, the MPCA is clarifying the existing rule that the word "closure" refers both to permanent closure and to temporary closure of one year or more. The MPCA has also deleted reference to two external release detection methods because these methods are not used in the state and will no longer be permitted as valid methods of release detection under revised part 7150.0330, subp. 5.

**(13) 7150.0430 PREVIOUSLY CLOSED UNDERGROUND STORAGE TANK SYSTEMS.**

There are no revisions to this part.

## **(14) Part 7150.0450 REPORTING AND RECORD KEEPING.**

In this part, the MPCA has consolidated all existing reporting and recordkeeping requirements applicable to the design, operation, and maintenance of UST systems throughout chapter 7150, including existing parts 7150.0240, .0350, and .0440. There is no change to most existing reporting and recordkeeping requirements, other than making several clarifications. Several new recordkeeping requirements are also identified.

### **Subp. 2. Reporting.**

In subp. 2(B) (existing part 7150.0240, item (A)(2)), the phrase “or of a change in the uses, contents, or ownership of a tank” is deleted since this requirement is already included in subp. 2(A), which references part 7150.0090. The reasons for the new requirement in subp. 2(F), requiring submittal of inspection reports for internally lined tanks, are discussed in this SONAR under part 7150.0205, subp. 1.

### **Subp. 3. Record retention.**

In subp. 3(D)(2)((a) - (m)), the MPCA has listed record retention duties for the sampling, testing, and monitoring which is associated with each of the various methods of tank and piping release detection which may be employed by owner/operators under the rules. The following are existing requirements: tank inventory control (unit a); manual tank gauging (unit b); tightness testing for tanks (unit c) and lines (unit i); automatic tank gauging (unit d); interstitial monitoring of secondary containment tanks (unit e) and piping (unit j); alternative release detection methods for tanks (unit f) and piping (unit k); electronic line leak detection (unit g); and mechanical line leak detector testing (unit h) are existing requirements.

Sump and basin monitoring (unit l) and function testing of automatic leak-sensing devices (unit m) are new release detection record retention requirements for secondarily contained tanks, piping, dispensers, and submersible pumps. The purpose of each of these new record retention requirements is to document tank owner/operator compliance with the new monitoring requirements associated with the new secondary containment requirements, as applicable to the specific tanks, piping, and release detection methods for each UST system. The retention period specified is ten years, which is consistent with most other UST record retention times.

The MPCA is requiring that all information which is maintained be legible, which is reasonable due to difficulties encountered during some compliance inspections when important records are handwritten and illegible.

### **Subp. 4. Record location.**

Subp. 4(B) (existing part 7150.0240, item C) is an existing requirement that allows a tank owner/operator the alternative to maintain records at a readily available site other than the actual facility that is the subject of the records. The existing wording (that the records must be provided for inspection upon request) has led to delay on occasion with obtaining records, because some tank owner/operators expected the MPCA to come to the alternative site to inspect

the records. The rule has been revised to specify that, upon MPCA request, the records must be submitted rather than merely made available at the alternative location, and the records must be submitted immediately to the MPCA. These clarifications are reasonable in order for the MPCA to readily determine compliance with the rules.

#### **(15) Part 7150.0500 INCORPORATION BY REFERENCE.**

Throughout the text of the rules, when the rules identify a particular standard to be followed, an incorporation by reference statement appears. This part represents a compilation of those industry standards, guidelines, and recommended practices related to UST systems that are required to be followed for various purposes in chapter 7150, and identifies how the documents may be obtained, either at the MPCA library or through the Minitex interlibrary loan system. Minn. Stat. § 14.07, subd. 4, requires this information whenever material is incorporated by reference into rules. It is reasonable for the MPCA to use the most recent edition available, therefore the references have been updated to specify the current title, document number, and edition. Certain documents in the existing rules are being deleted and others are being added; the reasons for these modifications are discussed in the applicable section of this SONAR.

#### **XIV. LIST OF AUTHORS, WITNESSES AND EXHIBITS**

##### **A. Author**

Chris Bashor, Industrial Division, Minnesota Pollution Control Agency.

##### **B. Witnesses**

The MPCA anticipates that the proposed amendments will be non-controversial, and that no public hearing will be necessary. If these rules go to a public hearing, the MPCA anticipates having the following witnesses testify in support of the need for and reasonableness of the rules:

1. Mr. Chris Bashor, Industrial Division. Mr. Bashor is the principal author of the SONAR and will testify on the general need for and reasonableness of the proposed rules.
2. Mr. Zachary Klaus, Industrial Division, Rochester Regional Office. Mr. Klaus is an Underground Storage Tank inspector and will testify on the specific need for individual proposed requirements.

##### **C. Exhibits**

1. Statement of Need and Reasonableness: In the matter of the Proposed Technical Standards for Owners and Operators of Underground Storage Tanks, Minnesota Rules Chapter 7150, January 10, 1991

**XV. CONCLUSION**

Based on the foregoing, the proposed rules are both needed and reasonable.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Brad Moore  
Commissioner