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

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 280 and 281

[EPA–HQ–UST–2011–0301; FRL–9485–5]

RIN 2050–AG46

Revising Underground Storage Tank Regulations—Revisions to Existing Requirements and New Requirements for Secondary Containment and Operator Training

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to make certain revisions to the 1988 underground storage tank (UST) technical, financial responsibility, and state program approval regulations. These changes establish federal requirements that are similar to key portions of the Energy Policy Act of 2005; they also update certain 1988 UST regulations. Proposed changes include: Adding secondary containment requirements for new and replaced tanks and piping; adding operator training requirements; adding periodic operation and maintenance requirements for UST systems; removing certain deferrals; adding new release prevention and detection technologies; updating codes of practice; making editorial and technical corrections; and updating state program approval requirements to incorporate these new changes. These changes will likely protect human health and the environment by increasing the number of prevented UST releases and quickly detecting them, if they occur.

DATES: Comments must be received on or before February 16, 2012. Under the Paperwork Reduction Act, comments on the information collection provisions are best assured of having full effect if the Office of Management and Budget (OMB) receives a copy of your comments on or before December 19, 2011.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–UST–2011–0301, by one of the following methods:

- *http://www.regulations.gov;* Follow the online instructions for submitting comments.
- *Email: mcdermott.elizabeth@epa.gov.*
- *Mail:* EPA Docket Center (EPA/DC), Docket ID No. EPA–HQ–UST–2011–0301, Mail Code 2822T, 1200 Pennsylvania Ave. NW., Washington, DC 20460. In addition, please mail a copy of your comments on the information collection provisions to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attn: Desk Officer for EPA, 725 17th St. NW., Washington, DC 20503.
- *Hand Delivery:* EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC 20460. Attention Docket ID No. EPA–HQ–UST–2011–0301. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–UST–2011–0301. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or email. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through *http://www.regulations.gov* your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket, visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

Docket: All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center (EPA/DC) is (202) 566–0276.

FOR FURTHER INFORMATION CONTACT: Elizabeth McDermott, OSWER/OUST (5401P), Environmental Protection Agency, 1200 Pennsylvania Avenue NW., Washington, DC 20460; telephone number: (703) 603–7175; email address: *mcdermott.elizabeth@epa.gov.*

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I. General Information

Does this action apply to me?

In the table below, EPA is providing a list of potentially affected entities. However, this proposed action may affect other entities not listed below. The Agency's goal with this section is to provide a guide for readers to consider regarding entities that potentially could be affected by this action. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding section titled **FOR FURTHER INFORMATION CONTACT**.

INDUSTRY SECTORS POTENTIALLY AFFECTED BY THE PROPOSED RULE

Industry sector	NAICS code
Retail Motor Fuel Sales	447.
Commercial (wholesale trade, retail trade, accommodation, and food services)	42, 44–45, 72 (excluding 447).
Institutional (hospitals only)	622.
Manufacturing	31–33.
Transportation (air, water, truck, transit, pipeline, and airport operations)	481, 483–486, 48811.
Communications and Utilities (wired telecommunications carriers; and electric power generation, transmission, and distribution).	5171, 2211.
Agriculture (crop and animal production)	111, 112.

What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through *http://www.regulations.gov* or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for Preparing Your Comments.* When submitting comments, remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, **Federal Register** date and page number).
- Explain why you agree or disagree, suggest alternatives, and substitute language for your requested changes.
- Describe any assumptions and provide any technical information and/or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified.

II. Authority

EPA is proposing these regulations under the authority of sections 2002, 9001, 9002, 9003, 9004, 9005, 9006, 9007, and 9009 of the Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act of 1976, as amended [42 U.S.C. 6912, 6991, 6991(a), 6991(b), 6991(c), 6991(d), 6991(e), 6991(f), 6991(h), 6991(i), and 6991(k)].

III. Background

EPA is proposing certain changes to the 1988 underground storage tank (UST) regulations in 40 CFR part 280. In addition, EPA is planning to implement the delivery prohibition provision of the Energy Policy Act of 2005 (hereafter called Energy Policy Act) for EPA-led inspections, but will address that independent of today's proposal. Finally, EPA is proposing to revise its state program approval (SPA) requirements in 40 CFR part 281 to incorporate the changes in 40 CFR part 280. While EPA's proposed changes to the 1988 UST regulations will improve environmental protection, we are sensitive to future costs for UST owners and operators and, as a result, minimized required retrofits.

This proposal strengthens the 1988 UST regulation by increasing the emphasis on properly operating and maintaining equipment. The 1988 UST regulation required owners and operators have spill, overfill, and release detection equipment in place, but did not require proper operation and maintenance for some of that equipment. For example, EPA required spill prevention equipment to capture drips and spills when the delivery hose is disconnected from the fill pipe but did not require periodic testing of that equipment. Today's proposed revisions will require that UST equipment is operated and maintained properly, which will improve environmental protection. These changes also acknowledge improvements in technology over the last 20 years, including the ability to detect releases from deferred UST systems.

Why is EPA changing the UST regulations?

EPA is proposing to revise the 1988 UST regulations to:

- Establish federal requirements that are similar to certain key provisions of the Energy Policy Act;
- Ensure owners and operators properly operate and maintain their UST systems;
- Include updates to current technology and codes of practices;
- Make technical and editorial corrections; and
- Update SPA regulation to address the proposed changes listed above.

In 1988, EPA first promulgated the UST regulations (40 CFR part 280) to prevent, detect, and clean up petroleum releases into the environment. The 1988 UST regulations required new UST systems to be designed, constructed, and installed to prevent releases; existing UST systems had to be upgraded to prevent releases. In addition, owners and operators were required to perform release detection, demonstrate financial responsibility, and clean up releases.

The Energy Policy Act amended Subtitle I of the Solid Waste Disposal Act (SWDA), the statute that authorized the UST program. Key Energy Policy Act provisions (such as secondary containment and operator training) apply to all states receiving federal Subtitle I money under SWDA, regardless of their state program approval status, but do not apply in Indian country (or in states and U.S. territories that do not meet EPA's operator training or secondary containment grant guidelines). The U.S. has a unique legal relationship with federally recognized Indian Tribes. This government to government relationship includes recognizing the rights of Tribes as sovereign governments to self-determination and acknowledging the federal government's trust responsibility to Tribes. As a result, EPA directly implements the UST program in Indian country.

In order to establish federal UST requirements that are similar to the UST secondary containment and operator training requirements of the Energy Policy Act, EPA decided to revise the 1988 UST regulations. EPA also decided to revise the 1988 UST regulations in order to achieve better release prevention and compliance results (see section IV.B. Additional Requirements for Operation and Maintenance for additional information). Today's proposed revisions also fulfill objectives in EPA's UST Tribal Strategy (August 2006), where both EPA and Tribes recognized the importance of requirements that ensure parity in program implementation among states and in Indian country. Requiring secondary containment will reduce releases to the environment by containing them within a secondary area and detecting them before they reach the environment. Operator training will educate UST system operators and help them prevent releases by complying with the regulation and performing better operation and maintenance of their UST systems.

Since the beginning of the UST program, preventing petroleum and hazardous substance releases from UST systems into the environment has been one of the primary goals of the program. Although EPA and our partners have made significant progress in reducing the number of new releases, approximately 7,000 releases are discovered each year as of FY 2009.[1] Lack of proper operation and maintenance of UST systems is a main cause of new releases. Information on sources and causes of releases shows that releases from tanks are less common than they once were. However, releases from piping and spills and overfills associated with deliveries have emerged as more common problems. In addition, releases at the dispenser are one of the leading sources of releases. Finally, data show that release detection equipment is only detecting approximately 50 percent of releases it is designed to detect. These problems are partly due to improper operation and maintenance (see section IV.B. Additional Requirements for Operation and Maintenance for a more detailed discussion of problems).[2] [3]

EPA relies on two draft causes of release studies to help support this proposed rule. *Petroleum Releases at Underground Storage Tank Facilities in Florida* contains release data on 512 releases from new and upgraded tanks in Florida.[4] The second draft study, *Evaluation of Releases from New and Upgraded Underground Storage Tank Systems,* contains release data on 580 releases from new and upgraded tanks in 23 states across the Northeast, South, and Central parts of the United States.[5] Taken together, these draft studies provide information about 1092 releases in 24 of the 50 states. The data in the two studies, when taken as a whole, generally provide a representative sampling of releases across the United States because nearly half of the states contributed to the studies. Both drafts were peer reviewed but never finalized because the passage of Energy Policy Act of 2005 required a reallocation of personnel and resources. Even though these studies were never finalized, the underlying data and calculations can be used to support this proposed rule because that information did not change as a result of the peer review process.

Many USTs currently in the ground were upgraded to meet the spill, overfill, corrosion protection, and release detection requirements in the 1988 UST regulation. As these USTs continue to age, it is vital that we improve UST operation and maintenance and test components to ensure they are still working as intended. Today's proposed revisions to the 1988 UST regulation focus on ensuring equipment is working, rather than requiring UST owners and operators to replace or upgrade equipment already in place. The 1988 UST regulation require owners and operators to use equipment that could help prevent releases; today's proposed revisions highlight the importance of operating and maintaining UST equipment so releases are prevented and detected early in order to avoid or minimize potential soil and groundwater contamination.

EPA is proposing changes to the SPA regulation (40 CFR part 281) to address today's proposed changes to 40 CFR part 280. By doing so, EPA will require states to generally adopt the 40 CFR part 280 changes proposed today in order to obtain or retain SPA.

What is the history of the UST laws and regulations?

In 1984, Congress responded to the increasing threat to groundwater posed from leaking USTs by adding Subtitle I to the Solid Waste Disposal Act (SWDA). Subtitle I of SWDA required EPA to develop a comprehensive regulatory program for USTs storing petroleum or certain hazardous substances, ensuring that the environment and human health are protected from UST releases. In 1986, Congress amended Subtitle I of SWDA and created the Leaking Underground

[1] Semi-Annual Report Of UST Performance Measures, End Of Fiscal Year 2009, *http://epa.gov/oust/cat/camarchv.htm.*

[2] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[3] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

[4] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[5] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

Storage Tank Trust Fund to implement a cleanup program and pay for cleanups at sites where the owner or operator is unknown, unwilling, or unable to respond, or which require emergency action.

In 1988, EPA promulgated the UST regulation (40 CFR part 280), which set minimum standards for new tanks and required owners and operators of existing tanks to upgrade, replace, or close them. In addition, after 1988 owners and operators were required to report and clean up releases from their USTs. The 1988 UST regulation set deadlines for owners and operators to meet those requirements by December 22, 1998. Owners and operators who chose to upgrade or replace had to ensure their UST systems included spill and overfill prevention equipment and were protected from corrosion. In addition, owners and operators were required to monitor their UST systems for releases using release detection (phased in during the 1990s, depending on when their UST systems were installed). Finally, owners and operators were required to have financial responsibility (phased in through 1998), which ensured they have financial resources to pay for cleaning up releases. EPA has not significantly changed the UST regulation since 1988.

In 1988, EPA also promulgated a regulation for state program approval (40 CFR part 281). Since states are the primary implementers of the UST program, EPA established a process where state programs could operate in lieu of the federal program if states met certain requirements and obtained state program approval from EPA. The state program approval regulation describes minimum requirements states must meet so their programs can be approved and operate in lieu of the federal program.

In 2005, the Energy Policy Act further amended Subtitle I of SWDA. The Energy Policy Act required states receiving Subtitle I money from EPA meet certain requirements. EPA developed grant guidelines for states regarding operator training, inspections, delivery prohibition, secondary containment, financial responsibility for manufacturers and installers, public record, and state compliance reports on government USTs. The operator training and secondary containment requirements are two major pieces of the Energy Policy Act that currently do not apply in Indian country, but will apply when EPA finalizes today's proposed regulation.

What is the impact of this proposal?

This proposal will ensure parity in program implementation among states and in Indian country. This proposal will achieve parity by adding certain requirements to the federal UST regulation (that would apply in Indian country) that are similar to the operator training and secondary containment requirements in the Energy Policy Act. This action will also further strengthen protection of human health and the environment from UST releases by increasing the emphasis on proper operation and maintenance of release prevention and detection equipment. Today's proposed revisions also reflect improvements in technology that allow for the ability to prevent and quickly detect releases for many tank systems that are currently deferred. The regulatory changes proposed today impose costs to owners and operators of existing regulated UST systems, owners and operators of certain deferred USTs, as well as costs associated with state review of the regulatory changes. EPA prepared an analysis of the potential incremental costs and benefits associated with this action. This analysis is contained in the regulatory impact analysis (RIA) titled *Assessment Of The Potential Costs, Benefits, And Other Impacts Of The Proposed Revisions To EPA's Underground Storage Tank Regulations,* which is available in the docket for this proposal. A summary of these impacts is provided under the Statutory Review section of this preamble and in the table below.

COSTS AND BENEFITS OF THE PROPOSED RULE

[2008$ millions]

	7% Discount rate	3% Discount rate
Total Annual Compliance Costs	$210	$210
Total Annual Avoided Costs	$300–$740	$330–$770
Net Cost (Savings) to Society	($530–$90)	($560–$120)

EPA also prepared a risk assessment titled *Risk Analysis to Support Potential Revisions to Underground Storage Tank (UST) Regulations,* associated with the regulatory changes. The risk assessment examines potential impacts to groundwater and subsequent chemical transport, exposure and risk. It is available for review in the docket for this proposal.

What was EPA's process in deciding which changes to incorporate in the regulations?

After the Energy Policy Act became law, EPA recognized a need to revise the 1988 UST regulations. The Energy Policy Act required additional measures to protect groundwater (either with secondary containment or financial responsibility for manufacturers and installers) and operator training requirements in states receiving federal Subtitle I money from EPA. However, no similar requirements would apply in Indian country until EPA promulgates a regulation. Both EPA and Tribes are committed to ensuring program parity between states and in Indian country, and today's proposed regulation, when final, will achieve this parity.

For over 20 years, the 1988 UST regulations worked well. However, two decades of experience implementing the UST program have shown there are a number of areas where EPA can improve the UST program and increase environmental protection. For example, updating the regulation to reflect current technologies and ensuring release prevention and release detection equipment are properly operated and maintained have surfaced as important regulatory changes.

From the start, EPA embraced an open, inclusive, and transparent process so all UST stakeholders had an opportunity to share their ideas and concerns. EPA recognizes concerns about costs to owners and operators and the importance of limiting requirements for retrofits. In developing this rule, we reached out to stakeholders involved in all aspects of the tank program, provided multiple opportunities for sharing ideas, and kept stakeholders informed of progress.

Using information from our extensive outreach, EPA compiled potential proposed changes to the 1988 UST regulations. We added or deleted items to the list of changes based on data, analysis, costs and benefits resulting from the proposed changes, and EPA discretion. Ultimately, EPA identified

the items in today's proposal as most appropriate.

IV. Proposed Revisions to the Requirements for Owners and Operators of Underground Storage Tanks

The following sections describe EPA's proposal, starting with requirements for operator training and secondary containment. The next four sections address changes to the existing regulation in 40 CFR part 280, organized by topic: Additional requirements for operation and maintenance; proposed approach for currently deferred tanks; other changes to improve release prevention and release detection; and general updates to the 1988 UST regulation. Finally, there is a section describing alternative options considered.

After each proposed regulatory change, EPA poses some questions to which readers may wish to respond. In addition to these specific questions, readers may provide comments to any other area of the proposal on which they wish to comment.

A. Changes To Establish Federal Requirements for Operator Training and Secondary Containment

1. Operator Training

What is EPA proposing?

EPA is proposing to add a new subpart, subpart J—Operator Training, to 40 CFR part 280. Through subpart J, EPA is proposing the following training requirements for three UST system operator classes.

New Definitions

EPA is proposing the following new terms and definitions:

- Class A operator—individual with primary responsibility for operating and maintaining an UST system according to applicable requirements established by the implementing agency. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.
- Class B operator—individual with day-to-day responsibility for implementing applicable regulatory requirements established by the implementing agency. The Class B operator typically implements in the field aspects of operation, maintenance, and associated recordkeeping for an UST system.
- Class C operator—employee responsible for initially addressing emergencies presented by a spill or release from an UST system. The Class C operator typically controls or monitors dispensing or sale of regulated substances.
- Training program—any program established by the implementing agency that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator regarding requirements for UST systems.

Training Requirements

- How operators are designated—UST owners and operators must designate individuals for each of the three operator classes. UST owners and operators must designate at least one Class A and one Class B operator for each UST or group of USTs at a facility. UST owners and operators must designate all of their employees who meet the Class C operator definition as Class C operators.
- Who must be trained—This proposed training requirement covers all UST systems storing regulated substances. UST owners and operators must ensure designated individuals meet specific training requirements according to the operator class in which they are designated.
- Requirements for operator training—UST owners and operators must ensure operators in each class successfully complete training programs or comparable examinations that, at a minimum, cover these areas:
  - Class A operator—spill and overfill prevention; release detection; corrosion protection; emergency response; product and equipment compatibility; financial responsibility; notification and storage tank registration; temporary and permanent closure; related reporting and recordkeeping; environmental and regulatory consequences of releases; and training requirements for Class B and C operators. Training for Class A operators is general on all listed areas.
  - Class B operator—operation and maintenance; spill and overfill prevention; release detection and related reporting; corrosion protection and related testing; emergency response; product and equipment compatibility; reporting and recordkeeping; environmental and regulatory consequences of releases; and training requirements for Class C operator. Training for Class B operators may be general or specific to a Class B operator's site.
  - Class C operator—appropriate action to take in response to emergencies (including situations posing an immediate danger or threat to the public or environment and that require immediate action) or alarms caused by spills or releases from an UST system. Training for Class C operators may be general or specific to a Class C operator's site.
- Training programs for Class A and B operators must, at a minimum, teach and evaluate their knowledge on the purpose, methods, and functions of items listed in the minimum training areas above. Training programs for Class C operators must teach and evaluate their knowledge of the items listed in the minimum training areas above.
- A training program must meet the minimum requirements discussed above and evaluate knowledge through a test, practical demonstration, or another approach acceptable to the implementing agency. In lieu of a training program, all three operator classes must pass comparable examinations that assess their knowledge in the minimum training areas above.
- The evaluation component of training programs and comparable examinations must be developed and administered by an independent organization, the implementing agency, or delegated authority.
- When designated operators must complete operator training—UST owners and operators must ensure all designated Class A, B, and C operators are trained or successfully complete a comparable examination according to criteria and within time frames in the schedule below. Phase in is based on when USTs were installed because newer UST systems tend to have fewer releases than older UST systems.[6]

[6] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

PHASE-IN SCHEDULE FOR OPERATOR TRAINING

Criteria	Date when operator training or comparable examination is required
One or more USTs at the facility were installed on or before 12/22/1988	One year after effective date of rule.
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	Two years after effective date of rule.
All USTs at the facility were installed after 12/22/1998	Three years after effective date of rule.

After the last date in the table above, UST owners and operators must ensure designated Class A and B operators are trained within 30 days of assuming duties. Designated Class C operators must be trained before assuming their duties.

• Retraining—Class A and B operators of UST systems determined by the implementing agency to be out of compliance must complete a training program or comparable examination in accordance with requirements in § 280.242. At a minimum, training must cover the area(s) determined to be out of compliance. Retraining must occur within 30 days from the date an implementing agency determines an UST system is out of compliance. Retraining is not required if:

○ Class A and B operators take annual refresher training which covers all applicable training requirements for their operator class; or

○ The implementing agency, at its discretion, grants a waiver relinquishing the Class A and B operators from meeting the retraining requirement.

• Documentation—UST owners and operators must maintain documents that identify all operators by class and demonstrate that training or retraining, if necessary, was completed. These documents must contain:

○ A list of designated Class A, B, and C operators for each UST facility—Include names, operator class trained, date assumed duties, date completed initial training, and date of any retraining. These records must be maintained for all Class A, B, and C operators at the facility for the previous three years.

○ Proof of training or retraining—A paper or electronic record that, at a minimum, includes name of trainee, date trained, and operator class. In addition, records from classroom or field training programs or a comparable examination, must be signed by the trainer or examiner and include the printed name of the trainer or examiner, company name, address, and phone number. Records from computer-based training, at a minimum, must include the name of the training program and web address, if Internet-based. Records of retraining must include those areas on which the Class A or B operator was retrained. Records of training or retraining must be maintained as long as the Class A, Class B, and Class C operators are designated at the facility.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing operator training requirements to ensure that all regulated UST systems are operated by properly trained individuals. The operator training provision of the Energy Policy Act requires state implementing agencies, as a condition of receiving federal Subtitle I money, develop state-specific training requirements for three classes of UST system operators. EPA issued grant guidelines that provide minimum requirements state operator training programs must include in order for states to continue receiving federal Subtitle I money.[7] The operator training grant guidelines apply to most UST systems in the United States; however, not all are covered. UST systems not covered include those in Indian country where EPA is the primary implementing agency, and in states and territories that do not meet the requirements of EPA's operator training grant guidelines.

Through today's proposal, EPA is closing the gap in coverage and ensuring all operators are trained according to their level of responsibility, as designated as Class A, B, or C. Sufficiently training UST operators will increase compliance with regulatory requirements. In addition, operator training may decrease UST system releases by educating Class A, B, and C operators about their UST system requirements, and may result in greater protection of human health and the environment.

Today's proposed operator training regulation for UST owners and operators is consistent with the requirements in EPA's operator training grant guidelines for states. In both, EPA establishes minimum operator training requirements, yet allows flexibility to tailor training programs for specific needs. This means that although there may be variations among operator training programs, all Class A, B, and C operators will be trained to meet minimum requirements.

Definitions—EPA is proposing specific definitions of the three operator classes to distinguish them from the term operator defined in the 1988 UST regulation. Only if a Class A, B, or C operator meets the definition of operator in the 1988 UST regulation will he or she then be subject to the same responsibilities and liabilities as an operator. EPA's proposed definitions of Class A, B, and C operators do not relieve owners and operators, as defined in the 1988 UST regulation, from any legal responsibility. EPA based the proposed three operator class definitions on duties each typically performs at UST facilities.

EPA is proposing a definition for training program. It is important that training programs for Class A, B, and C operators include both sharing information and evaluating knowledge.

How operators are designated—EPA is proposing how UST owners and operators designate the three operator classes for their facilities. EPA is taking the position that designating at least one Class A and B operator at each facility is sufficient. Class A and B operators can provide adequate training to Class C operators, which should ease UST owners' and operators' ability to comply with this requirement. Because a Class C operator's duties typically place him or her in a position of providing initial response to an emergency, any UST owner's and operator's employee who meets the Class C operator definition must be designated as such and trained in emergency response.

EPA will allow UST owners and operators to designate contractors as their Class A and B operators as long as they are responsible for all areas required in the training for the class of operator designated. UST owners and operators must maintain documentation containing individual names of Class A and B contractors who complete operator training. It will be easier for implementing agencies to verify training, retraining, and refresher training using individual names rather

[7] Grant Guidelines To States For Implementing The Operator Training Provision Of The Energy Policy Act Of 2005: *http://www.epa.gov/oust/fedlaws/optraing.htm.*

than company names. All Class C operators must be employees of the UST system owner and operator.

EPA wants to ensure Class A and B operator training addresses all components and encompasses the entire UST system. If an UST system is out of compliance and the implementing agency determines retraining is required, Class A or B operators must either be retrained or take annual refresher training. EPA cautions UST owners and operators to consider whether contractors serving as Class A or B operators can be designated. Because some contractors specialize in UST services, they might not be eligible to be Class A or B operators. For example, if a contractor is only responsible for release detection compliance, that contractor would not be eligible to be a Class A or B operator because he or she is not responsible for all required training areas.

EPA realizes many UST owners and operators may want to designate one person at an UST facility as responsible for all Class A, B, and C operator duties. EPA will allow one person to serve in multiple operator classes; however, that person must be trained for each class designated.

Who must be trained—When final, today's proposal will require training for designated Class A, B, and C operators at UST systems regulated under Subtitle I. This includes UST systems of all attended and unattended facilities. An unattended UST facility means a Class A, B, or C operator may not be present during times when a facility is operating. Nonetheless, even at unattended UST facilities, designated Class A, B, and C operators must still meet the operator training requirement.

Requirements for operator training—EPA based the three operator classes on duties each typically performs at UST facilities. Building on that, EPA is proposing each person designated in an operator class pass an examination comparable to the training program, or meet a specific training program, which will:

- For Class A operator, teach and evaluate his or her knowledge to make informed decisions regarding compliance and determine whether appropriate people are fulfilling the operation, maintenance, and recordkeeping requirements for UST systems.
- For Class B operator, teach and evaluate his or her knowledge and skills to implement UST regulatory requirements on typical UST system components or site-specific equipment at the UST facility.
- For Class C operator, teach and evaluate his or her knowledge to take appropriate action in response to emergencies (including situations posing an immediate danger or threat to the public or environment and that require immediate action) or alarms caused by spills or releases from an UST system.

For each class of operator, EPA considered developing specific training curricula that would prescribe length of training, areas to cover, and trainer qualifications. EPA decided that providing the general criteria requirements presented in today's proposal is the best approach because they provide flexibility while being comparable to EPA's operator training grant guidelines for states and ensuring each class of operator is trained.

EPA proposes not to restrict who may develop and administer the training component of a training program. However, to avoid potential conflicts of interest, EPA proposes to only allow independent organizations to develop and administer the evaluation component training programs and comparable examinations, as long as they meet the minimum requirements in today's proposal. EPA considers independent organizations to include a wide array of program providers who are not affiliated with the Class A, B, or C operators they are training. For example, Class A or B operators can train other Class A or B operators at the same UST facility, but they cannot develop or conduct the evaluation component of the training program for those operators. However, as discussed earlier, Class A or B operators can train and evaluate Class C operators. In addition, the implementing agency may develop and administer a training program or comparable examination.

Although not specifically listed in the regulation, EPA will allow a variety of ways to train operators. These include classroom, computer-based, hands on, and any combination of these.

Accepted in lieu of completing a training program, Class A, B, or C operators can pass a comparable examination (for example, via classroom, Internet, or computer program) that meets the requirements for operator training criteria described in today's proposal.

When designated operators must complete operator training—EPA is proposing that UST owners and operators ensure all Class A, B, and C operators successfully complete a training program or a comparable examination over three years, based on UST installation dates. This phased-in approach will stagger the need for operator training and reduce a rush at the end of the initial three year period. Since older USTs potentially pose a greater risk to the environment, EPA decided Class A, B, and C operators of those systems should be trained first.

After the initial three year phase-in period and for consistency with EPA's operator training grant guidelines for states, EPA is proposing new Class A, B, and C operators be trained as follows:

- Class A and B operators must be trained within 30 days of assuming duties. 30 days are sufficient for Class A and B operators to receive operator training.
- Class C operators must be trained before they assume their duties; it is critical that they are trained immediately in order to respond to emergencies.

Retraining—UST system noncompliance can be an indication that Class A and B operators are not doing what is necessary to maintain compliance. If an UST system is out of compliance, then generally, Class A and B operators designated for that UST system need to be retrained. Retraining must, at a minimum, cover those areas determined by the implementing agency to be out of compliance. Retraining must be completed within 30 days of the implementing agency making a final determination of noncompliance. EPA is proposing to allow annual refresher training in lieu of retraining as long as all training areas required by regulation are covered. Refresher training must have been in place at the time the implementing agency determined the UST system was out of compliance.

EPA is also proposing to allow implementing agencies, at their discretion, to waive the retraining requirement. EPA recommends that such a waiver be in writing. In granting a waiver, EPA expects the implementing agency to consider factors such as the severity and areas of noncompliance. In those instances where UST system noncompliance violations do not warrant retraining, EPA encourages implementing agencies to provide information to Class A and B operators so they are able to return their facilities to compliance. These allowances will provide greater flexibility for UST owners and operators to meet the retraining requirement. This proposal is consistent with EPA's retraining requirement for noncompliance with significant operational compliance requirements and an annual refresher training allowance provided in our operator training grant guidelines for states.

EPA considered requiring retraining when UST facilities change equipment,

but decided this would be an unnecessary burden on both the regulated community and implementing agencies. If an UST system is out of compliance because of an equipment change, EPA is proposing that the implementing agency require that UST owners and operators ensure Class A and B operators are retrained as proposed above.

Documentation—EPA is proposing UST owners and operators maintain a list of Class A, B, and C operators at each UST facility for the previous three years. Keeping this list for three years is adequate because it is consistent with the inspection frequency provided by the Energy Policy Act. Owners and operators must have a list of trained operators for the past three years each time they are inspected. In addition, UST owners and operators must also document verification of training or retraining, as appropriate, for each class of operator. EPA will require basic information to document Class A, B, and C operators and confirm they are appropriately trained. For example, classroom training must be signed by the trainer; computer based training does not require a signature but must indicate the name of the training. Records verifying training or retraining must be maintained as long as the Class A, B, and C operators are designated at the facility. This time frame will allow owners and operators to demonstrate Class A, B, and C operators are trained as long as they are designated at the facility.

What issues related to this change does EPA request comment or additional data on?

- Should EPA impose a limit on the number of USTs or facilities a Class A or B operator is responsible for? If so, what should the limit be and why?
- EPA is seeking information about the number of unattended regulated UST facilities in the United States. How many regulated UST facilities are unattended in the United States?
- EPA is basing the initial period for meeting the training requirement on the UST installation date. Should we consider other criteria? If so, what and why?
- Is there a need for a phased-in schedule for operator training? If so, is EPA's proposed schedule reasonable?
- Does EPA's proposal prohibit training approaches currently available? If so, which ones and why?
- Should EPA prohibit particular training approaches? If so, which ones and why?
- Although operators can access any available information source to obtain necessary knowledge of UST systems, in order to address potential conflicts of interest concerns, only independent organizations are allowed to develop and administer the evaluation component of training programs and comparable examinations. Are there cases where EPA should consider exceptions to this proposed requirement?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

2. Secondary Containment

What is EPA proposing?

EPA is proposing to add in 40 CFR part 280 secondary containment and interstitial monitoring requirements for new and replaced tanks and piping. In addition, UST systems must have under-dispenser containment for new dispenser systems.

New Definitions

EPA is proposing the following new terms and definitions:

- Dispenser system—Equipment located above ground that meters the amount of regulated substances transferred to a point of use outside the UST system, such as a motor vehicle. This system includes equipment necessary to connect the dispenser to the UST system.
- Replaced—
  - *For a tank:* To remove a tank and install another tank.
  - *For piping:* To remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.
- Secondary containment or secondarily contained—A release prevention and release detection system for a tank and/or piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks.
- Under-dispenser containment (UDC)—Containment underneath a dispenser system designed to prevent dispenser system leaks from reaching soil or groundwater.

Secondary Containment

EPA is proposing owners and operators install secondary containment (including interstitial monitoring) for new or replaced tanks and piping installed after the effective date of the final UST regulation. EPA is not proposing secondary containment for the following types of piping:

- Suction piping that meets the requirements of § 280.41(b)(2)(i) through (v), sometimes called safe suction piping; and
- Piping associated with field-constructed tanks and airport hydrant fuel distribution systems.

EPA is proposing secondarily contained tanks and piping be:

- Able to contain regulated substances leaked from the primary containment until they are detected and removed;
- Able to prevent release of regulated substances to the environment at any time during the operational life of the UST system; and
- Monitored for a leak at least once every 30 days using interstitial monitoring according to § 280.43(g).

In addition to the requirements above, pressurized piping must have an automatic line leak detector according to § 280.44(a).

EPA is proposing to remove the option in § 280.42 for owners and operators to use a release detection method other than interstitial monitoring for hazardous substance USTs installed after the effective date of the final UST regulation.

Under-Dispenser Containment

EPA is proposing owners and operators install under-dispenser containment beneath new dispenser systems at UST systems. EPA will incorporate this new requirement by adding a new subsection (f) to § 280.20, which will require under-dispenser containment beneath each new dispenser system at an UST system.

EPA is proposing a dispenser system be considered new when both the dispenser system and equipment needed to connect the dispenser system to the UST system are installed at an UST facility. The equipment connecting the dispenser system to the UST system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components beneath the dispenser that connect it to underground piping. Finally, under-dispenser containment must be liquid tight on its sides, bottom, and at any penetrations and allow for visual inspection and access to the components in the containment system, or must be continuously monitored for leaks from the dispenser system.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing this change to prevent regulated substances from reaching the environment and ensure a consistent level of environmental protection for regulated UST systems across the United States. Data from

release sites show a higher number of releases from single-walled tanks and piping when compared to secondarily contained systems.[8] [9] Releases could be reduced for tanks and piping if they are secondarily contained.

The Energy Policy Act requires state implementing agencies, as a condition of receiving federal Subtitle I money, implement additional measures to protect groundwater. Under the law, state implementing agencies' choices to protect groundwater were secondary containment (including under-dispenser containment) or financial responsibility for manufacturers and installers (and installer certification). 54 of 56 state implementing agencies chose secondary containment. The Energy Policy Act did not specifically require additional measures to protect groundwater in Indian country. As the primary implementer for more than 2,600 UST systems in Indian country, [10] EPA is proposing secondary containment for new and replaced tanks and piping along with under-dispenser containment beneath all new dispenser systems at UST systems. Over the last seven years, approximately 25 new UST systems per year were installed in Indian country.[11] The final UST regulation will bring UST systems in Indian country to the same level of environmental protection as those regulated by states.

The Energy Policy Act requires states that receive federal Subtitle I money (and that choose the secondary containment option) to have secondary containment and under-dispenser containment for tanks, piping, and dispensers only if they are installed or replaced within 1,000 feet of an existing community water system or potable drinking water well.[12] However, EPA is proposing all new and replaced tanks and piping have secondary containment and UST systems have under-dispenser containment beneath all new dispenser systems for the following reasons:

- Nearly all new and replaced tanks and piping are installed within 1,000 feet of an existing community water system or potable drinking water well. We assume that any UST listed with a commercial ownership type (*i.e.,* gas station) is located within 1,000 feet of an on-site well or public water line because nearly all commercially-owned facilities with USTs require water utilities in order to operate and all privately owned facilities (*i.e.,* fleet fueling for non-marketers) are also assumed to be in close proximity to some type of water supply given that these sites are typically combined with other functional operations (office, maintenance, manufacturing, *etc.*) and require water for restrooms, water fountains, shops, *etc.;*[13]
- Some state implementing agencies that require secondary containment only within 1,000 feet of one of these water sources have informed EPA that installations of single-walled tanks or piping are not occurring; and
- Secondary containment and under-dispenser containment will help protect other sensitive areas, such as designated source water protection areas, natural springs, and surface waters.

EPA is not proposing secondary containment for piping that meets the requirements of 280.41(b)(2)(i) through (v), sometimes called safe suction piping because it is currently not required to meet release detection requirements. This type of piping uses a suction pump to deliver regulated substances from the UST to the dispenser. Safe suction piping operates at less than atmospheric pressure, slopes back towards the UST so regulated substances drain to the UST if suction is lost, and has only one check valve located close to the suction pump. As discussed in the 1988 UST regulation preamble, these characteristics ensure that little, if any, regulated substances will be released if a break occurs in the line.[14]

EPA is not proposing secondary containment for piping associated with field-constructed tanks and airport hydrant fuel distribution systems. EPA understands this piping typically is larger diameter and runs for long distances, making it difficult to slope the piping back to an interstitial monitoring area. In addition, EPA understands it is difficult to keep water out of the interstitial area of these long piping runs. Since nearly all this piping is steel, corrosion can occur in the interstitial area when an electrolyte, such as water, is in the interstitial area. This corrosion can significantly shorten the piping's life. Corrosion protection safeguards piping in contact with the ground, but does not protect the inside part of piping from corrosion. To prevent corrosion caused by water in the interstitial area, owners and operators would need to add corrosion protection inside the interstitial area of piping, which EPA realizes would be difficult, if not impossible, to do. Given all of these issues, secondary containment for these piping runs could potentially reduce environmental protection.

EPA is proposing owners and operators install tank and piping secondary containment that: will contain regulated substances leaked from the primary containment until they are detected and removed; is able to prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and is monitored for a leak at least once every 30 days using interstitial monitoring. These requirements are consistent with the 1988 UST regulation for secondarily contained hazardous substance tanks (§ 280.42) and are necessary to help prevent releases to the environment.

The secondary containment requirement applies to new or replaced underground tanks and piping regulated under Subtitle I except those excluded by regulation at 40 CFR 280.10(b) and those deferred by regulation at 40 CFR 280.10(c). All petroleum and hazardous USTs are intended to meet the secondary containment requirement with the corresponding use of interstitial monitoring. EPA's current regulation allows variances to the use of interstitial monitoring as the method of release detection for hazardous substance USTs. Since these variances are no longer an option, EPA is eliminating this language to avoid confusion.

EPA is not proposing secondary containment and/or under-dispenser containment for UST systems where installation began on or before the effective date of the final UST regulation. Similar to the definition of existing tank system in the 1988 UST regulation, EPA considers an installation to have begun after the owner or operator has obtained all federal, state, and local approvals or permits and:

[8] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[9] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

[10] Semi-Annual Report Of UST Performance Measures, End Of Fiscal Year 2009, *http://epa.gov/oust/cat/camarchv.htm.*

[11] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

[12] Title XV, subtitle B, Section 1530 of Energy Policy Act of 2005, 109th Congress Public Law 58, August 8, 2005.

[13] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

[14] Preamble to 40 CFR part 280, FR Vol. 53, No. 185, Friday, September 23, 1988, p. 37154.

• Physical construction or installation began; or

• The owner or operator entered into a contractual agreement that cannot be cancelled or modified without substantial loss and physical construction or installation will commence within a reasonable time frame.

Requiring retrofits would be a significant financial burden for owners and operators. EPA anticipates owners and operators will replace single-walled UST systems as they age. When owners and operators replace singled-walled UST systems after the effective date of the final UST regulation, new tanks and piping will need to be secondarily contained and new dispensers will have under-dispenser containment.

To implement secondary containment and under-dispenser containment, EPA is proposing to add new terms and definitions: Dispenser system; replaced; secondary containment or secondarily contained; and under-dispenser containment. EPA defined these terms so they are no less stringent than the definitions contained in EPA's secondary containment grant guidelines to state implementing agencies.[15]

EPA's secondary containment grant guidelines provide states with significant flexibility to define ''replaced'' as it applies to piping. The guidelines require that states, at a minimum, consider replacing piping when 100 percent of piping, excluding connectors, connected to a single UST is removed and other piping is installed. When deciding how to best define replaced as it applies to piping, EPA analyzed state UST regulations for approximately 40 states that currently require secondary containment and interstitial monitoring.[16] About 75 percent of these states have requirements as stringent as, or more stringent than, the 50 percent threshold EPA proposes.

In addition, EPA performed a screening analysis using limited, readily-available data to determine when repair cost approached replacement cost (and at what point owners and operators were most likely to replace the entire piping run rather than repair it).[17] The screening analysis suggested replacement cost of an entire piping run became equal to repair cost when about 60 percent of a piping run is repaired. Based on this information, EPA is proposing owners and operators secondarily contain an entire piping run when 50 percent or more of a piping run is replaced. This is consistent with most state implementing agency decisions and existing economic incentives. This will also prevent owners and operators from leaving small pipe sections in the ground to avoid this proposed secondary containment requirement. If an UST has multiple piping runs, the secondary containment requirement will only apply to those where 50 percent or more of piping is replaced. Currently installed piping runs, and piping runs where less than 50 percent of the piping is repaired, will not require secondary containment.

For pressurized piping, EPA considers a piping run to be the piping that connects the submersible turbine pump (STP) to all of the dispensers fed by that pump. For example, if a tank has two STPs, the piping associated with each STP would be considered separate piping runs. For suction piping, a piping run is the piping that runs between the tank and the suction pump.

Consistent with EPA's current policy, if an owner or operator chooses to reinstall a secondarily contained tank or piping that was previously installed, that tank or piping must meet new tank and piping standards in § 280.20 at the time of installation.

The Energy Policy Act defined secondary containment as a release detection and prevention system that meets the interstitial monitoring requirement in § 280.43(g). Based on this definition, EPA is proposing to include interstitial monitoring as part of the secondary containment definition. Therefore, secondary containment means having an interstitial space to monitor and monitoring that space for a leak. Consistent with the 1988 UST regulation release detection requirements, EPA is proposing interstitial monitoring of new and replaced secondarily contained tanks and piping at least once every 30 days.

EPA is proposing owners and operators install under-dispenser containment beneath new dispenser systems at UST systems. Data from release sites show dispensers are one of the leading release sources.[18] [19] Under-dispenser containment is located underground and will prevent some releases by containing small releases that occur inside and beneath the dispenser. EPA considers a dispenser system new when both the dispenser and equipment needed to connect the dispenser to an UST system are installed at an UST facility. EPA is proposing check valves, shear valves, unburied risers or flexible connectors, and other transitional components be included as equipment that connects a dispenser to an UST system. This equipment is located beneath the dispenser and typically connects underground piping to a dispenser. If an owner or operator replaces a dispenser but uses existing equipment to connect a dispenser to the UST system, then under-dispenser containment is not required.

To contain small releases from the dispenser, piping, and other equipment, the under-dispenser containment must be liquid tight. EPA is proposing under-dispenser containment be liquid tight on its sides, bottom, and at any penetrations through the containment. EPA is proposing periodic testing of under-dispenser containment in the secondary containment tests section (see section B–4). In addition, an owner or operator must have access to and be able to visually inspect the containment. If visual inspection and access are not available, then under-dispenser containment must be continuously monitored to ensure containment is intact and free of liquids. Continuous monitoring and visual inspections (required in the proposed walkthrough inspections discussed in section B–1) will ensure problems with the under-dispenser containment will be detected before a release to the environment occurs.

The Energy Policy Act requires under-dispenser containment beneath new motor fuel dispenser systems at UST systems. However, EPA is aware of a small number of dispenser systems which do not dispense motor fuel (for example, kerosene dispensers). Small releases can occur at these dispensers in the same manner as they occur at motor fuel dispensers.[20] [21] [22] Therefore, EPA is

[15] Grant Guidelines To States For Implementing The Secondary Containment Provision Of The Energy Policy Act Of 2005: *http://epa.gov/oust/fedlaws/secondco.htm.*

[16] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

[17] IEc Incorporated, Work Assignment # 1–19, ''Methodology and Calculator for Secondary Containment for Piping,'' October 3, 2008.

[18] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[19] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

[20] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[21] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

[22] Frequency And Extent Of Dispenser Releases At Underground Storage Tank Facilities In South

Continued

proposing owners and operators install under-dispenser containment beneath new dispenser systems at UST systems, irrespective of whether they dispense motor fuel.

What issues related to this change does EPA request comment or additional data on?

- If you have any of the following data, please provide the:
  - ○ Number of UST systems not installed within 1,000 feet of any existing community water system or potable drinking water well.
  - ○ Number of non-motor fuel dispensers connected to UST systems in the United States.
  - ○ Typical length or percentage of piping repaired during a typical repair.
  - ○ Costs, types and frequency of piping repairs and replacements.
- Are there regulatory incentives that EPA should consider to encourage owners and operators to move toward secondary containment? If yes, what are those incentives?
- In addition to the three types of piping identified for exclusion by EPA, are there other types of piping for which secondary containment is impractical or unnecessary? If yes, what are those types and why is secondary containment impractical or unnecessary?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

B. Additional Requirements for Operation and Maintenance

The 1988 UST regulation required owners and operators to install improved UST system equipment to detect and prevent releases; however, it did not require operation and maintenance for all of that equipment. Owners and operators need to properly operate and maintain their UST system equipment in order to prevent and quickly detect releases. Therefore, we propose to add requirements for periodic spill, overfill, secondary containment, and release detection testing along with periodic walkthrough inspections to prevent and quickly detect releases.

When a test or inspection occurs, owners and operators may find problems with the UST system. When a test or inspection indicates a problem, owners and operators must repair the problem to remain in compliance with the 1988 UST regulation. Section 280.33 of the 1988 regulation describes repair requirements for UST systems.

1. Walkthrough Inspections

What is EPA proposing?

In § 280.37, EPA is proposing owners and operators perform walkthrough inspections of their UST systems at least once every 30 days and meet one of these three options:

- *Option 1:* Conduct operation and maintenance walkthrough inspections that, at a minimum and as appropriate to the facility, check the following equipment:
  - ○ Spill prevention equipment
    - ■ Open and visually check for any damage;
    - ■ Remove any liquid or debris;
    - ■ Check each fill cap to make sure it is securely on the fill pipe; and
    - ■ If secondarily contained with continuous interstitial monitoring, check for a leak in the interstitial area.
  - ○ Sumps and dispenser cabinets
    - ■ Open and visually check for any damage, leaks to the containment area, or releases to the environment;
    - ■ Remove any liquid (in contained areas) or debris; and
    - ■ If contained areas are secondarily contained with continuous interstitial monitoring, check for a leak in the interstitial area.
  - ○ Monitoring/observation wells
    - ■ Check covers to make sure they are secured.
  - ○ Cathodic protection
    - ■ Check to make sure impressed current cathodic protection rectifiers are on and operating; and
    - ■ Ensure records of three year cathodic protection testing and 60 day impressed current system inspections are reviewed and current.
  - ○ Release detection
    - ■ Check to make sure the release detection system is on and operating with no alarm conditions or other unusual operating conditions present;
    - ■ Check any devices such as tank gauge sticks, groundwater bailers, and hand-held vapor monitoring devices for operability and serviceability; and
    - ■ Ensure records of release detection testing are reviewed monthly and current.
- Option 2—Conduct operation and maintenance walkthrough inspections according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that are comparable to the specific requirements listed above.
- Option 3—Conduct operation and maintenance walkthrough inspections developed by the implementing agency that are comparable to the specific requirements listed above.

EPA is proposing owners and operators maintain walkthrough inspection records for one year. Each record must include a listing of each area checked, whether each area checked was acceptable or needed to have some action taken, and a description of actions taken to correct an issue.

Why is EPA proposing this change? What background information is available about this change?

The 1988 UST regulation focused on owners and operators installing improved UST equipment, but did not require significant equipment operation and maintenance activities. After more than 20 years of experience with UST requirements, EPA finds both using improved equipment and operating and maintaining UST equipment are necessary to protect human health and the environment. 12 states have adopted monthly walkthrough inspection requirements for their UST facilities. Of those states, only California has been implementing the requirement long enough to provide input about the effectiveness of walkthrough inspections. California indicates that, according to UST inspectors and industry people, the monthly inspections decreased the number of violations found, reduced the frequency and duration of release detection alarms, prompted better record keeping, and resulted in overall better operations at the UST facility.[23]

As part of operating and maintaining UST systems, EPA proposes owners and operators conduct walkthrough inspections at least once every 30 days. Periodic walkthrough inspections will help owners and operators detect problems earlier, resulting in fewer releases to the environment and reduced environmental impacts of releases that reach the environment.

Walkthrough inspections are designed to verify proper function or operating condition of easily accessible UST system components and ensure required records are current. These inspections typically include reviewing records and checking components to confirm function or condition. For example, owners and operators will be required to review current records and ensure equipment is operating properly; containment sumps are free of liquid and debris; and leaks are not occurring at dispensers, submersible turbine pumps, and other areas. EPA used the Petroleum Equipment Institute's Recommended Practice 900, Recommend Practices for the Inspection and Maintenance of UST Systems, as a

Carolina (EPA–510–R–04–004, September 2004). *http://epa.gov/oust/pubs/dispenser.htm.*

[23] Email from Laura Fisher, California State Water Resources Control Board, April 30, 2010.

guide as we developed the proposed walkthrough inspection requirements. EPA is proposing allowing owners and operators to hire a third party to conduct walkthrough inspections instead of performing the inspection themselves.

EPA is proposing three options for owners and operators to choose from in conducting walkthrough inspections: follow the specific requirements (described below) appropriate to the UST facility; use a code of practice developed by a nationally recognized association or independent testing laboratory; or follow requirements developed by the implementing agency. At a minimum, walkthrough inspections conducted according to a code of practice or developed by the implementing agency need to be comparable to the following requirements. The specific requirements proposed and reasons for their inclusion in the regulation are:

• For spill prevention equipment—open each spill prevention area, check for damage, and remove any liquid or debris; check the fill cap to make sure it is securely on the fill pipe; and for secondarily contained spill prevention equipment with continuous interstitial monitoring, check for a leak in the interstitial area.

○ Damaged spill prevention equipment can release regulated substances into the environment and liquid or debris can reduce the equipment's capacity. Fill caps not secure on the fill pipe can result in vapors exiting the tank and can render overfill prevention inoperable in tanks that use flow restrictors in the vent line. Some spill prevention equipment construction materials may not be designed to contain regulated substances for long periods of time. For spill prevention equipment with two walls and continuous interstitial area monitoring, owners and operators need to check the monitoring device or area to make sure the interstitial monitoring is operating properly and does not indicate a leak in the interstitial area.

• For sumps, including submersible turbine pump sumps and transition sumps—open and visually check for damage, leaks to the containment area, or releases to the environment; remove any liquid (in contained sumps) or debris; and for secondarily contained sumps with continuous interstitial monitoring, check for a leak in the interstitial area.

○ Drips and other small releases from damaged components contained by the sump can result in regulated substances remaining in the sump. Damaged sumps can release regulated substances into the environment. Liquid or debris can reduce the capacity of a contained sump. Some sump construction materials may not be designed to contain regulated substances for long periods of time. For sumps with two walls and continuous interstitial area monitoring, owners and operators need to check the monitoring device or area to make sure the interstitial monitoring is operating properly and does not indicate a leak in the interstitial area.

• For dispenser cabinets—open each cabinet; visually check for damage, leaks to the containment area, or releases to the environment; remove any liquid (in dispensers with under-dispenser containment) or debris; and for dispenser sumps with continuous interstitial monitoring, check for a leak in the interstitial area.

○ Visual checks for dispensers are important because the 1988 UST regulation does not require release detection for dispensers. Drips and other small releases from damaged components in the dispenser cabinet can result in regulated substances remaining in the dispenser sump or being released to the environment. Damaged under-dispenser containment (if present) can release regulated substances into the environment. If under-dispenser containment is present, liquid or debris can reduce the capacity of the containment sump. Some under-dispenser containment construction materials may not be designed to contain regulated substances for long periods of time. For dispenser sumps with two walls and continuous interstitial area monitoring, owners and operators need to check the monitoring device or area to make sure the interstitial monitoring is operating properly and does not indicate a leak in the interstitial area.

• For monitoring or observation wells—check the covers to make sure they are secured.

○ These wells need to be secured to avoid potential contamination of wells through the well cover (for example by surface runoff or accidental fuel delivery to the well).

• For cathodic protection—check to make sure impressed current cathodic protection rectifiers are on and operating; ensure records of three year cathodic protection testing and 60 day impressed current system inspections are reviewed and up to date.

○ Impressed current cathodic protection systems need to be on and operating to protect underground metal components of the UST system that routinely contain regulated substances from corrosion. In addition, owners and operators need to retain records of the most recent two cathodic protection tests (required once every three years) and the most recent three inspections (required once every 60 days) for impressed current systems. These records show that cathodic protection systems are on and operating properly to protect UST system components from corrosion. Owners and operators who record rectifier readings and compare those readings to the normal operating parameters of the rectifier during the 30 day walkthrough inspections will meet the 60 day impressed current inspection requirement in § 280.31(c) without further activity. Failure to operate and maintain cathodic protection could mean that metal UST system components are corroding and could result in a release to the environment.

• For release detection—check to make sure the release detection system is on and operating with no alarm conditions or other unusual operating conditions present; check any devices such as tank gauge sticks, groundwater bailers, and hand-held vapor monitoring devices for operability and serviceability; and ensure records of release detection testing are reviewed monthly and up to date.

○ Release detection equipment needs to be operable in order to detect releases when they occur. Owners and operators must respond to release detection alarms. Manual release detection equipment needs to be serviceable and operational so owners and operators can perform proper release detection. In addition, owners and operators need to ensure they review the most recent month's release detection information and retain the most recent year's worth of release detection records. These records are required for all methods of release detection, and reviews ensure UST systems are being checked for a release at least once every 30 days. Failure to perform these checks could mean release detection equipment is not operating properly and could result in a release to the environment.

Owners and operators using continuous interstitial monitoring for double-walled spill prevention devices, sumps, or dispenser containment areas need to check the interstitial monitoring to make sure it is operating properly and does not indicate a leak in the interstitial area. EPA is aware of these continuous interstitial monitoring methods: vacuum, pressure, or liquid-filled interstitial area monitoring and placing sensors in the interstitial area. For vacuum, pressure, or liquid-filled interstitial area monitoring using electronic devices and sensors, owners and operators will need to check the electronic device to make sure it is not

in alarm. For interstitial areas monitored using vacuum, pressure, or liquid-filled interstitial area monitoring not using some type of electronic monitoring, owners and operators will need to make sure the vacuum, pressure, or liquid is maintaining its appropriate level. Owners and operators who do not check the interstitial monitoring of spill prevention devices must perform periodic spill prevention equipment testing described in § 280.35(a)(ii) of the proposed UST regulation. Owners and operators who do not check the interstitial monitoring of sumps or dispenser containment areas and who use those areas for interstitial monitoring for their piping must perform the periodic testing of secondary containment described § 280.36(a)(iii) of the proposed UST regulation.

EPA is proposing walkthrough inspections be conducted at least every 30 days. 30 days is a reasonable time frame because:

- Deliveries occur frequently—often daily or every few days;
- Dispenser filters are changed every few weeks or months;
- It is consistent with the 30 day release detection monitoring requirement; and
- Current operation and maintenance industry standards (Petroleum Equipment Institute Recommended Practice 900) recommend monthly checks as one of the periodic inspection frequencies.

EPA is proposing owners and operators retain the most recent year's worth of records to demonstrate compliance with the walkthrough inspection requirement. Owners and operators will be required to document they performed each of the required activities at least once every 30 days. Keeping one year's worth of records is consistent with the current recordkeeping requirement for release detection monitoring. EPA is proposing owners and operators document each area checked, whether each area checked was acceptable or needed to have some action taken, and provide a description of any actions taken to correct an issue. This information is important to assist implementing agencies in determining proper operation and maintenance.

What issues related to this change does EPA request comment or additional data on?

- Is a 30 day inspection frequency an appropriate time frame for owners and operators to conduct walkthrough inspections?
- Is it reasonable for owners and operators to begin conducting walkthrough inspections immediately after the final UST regulation becomes effective?
- Is specialized training required for individuals completing walkthrough inspections? If yes, what should EPA establish as the extent of the training?
- Are there other codes of practice that should be included for conducting walkthrough inspections?
- Is requiring owners and operators to keep the most recent year's worth of records sufficient?
- Are the items EPA proposes checking appropriate? Should EPA add anything? Are there checks EPA is proposing that should not be required?
- Should EPA consider not requiring owners and operators to remove water from contained sumps when both of the following conditions exist?
  - Owners and operators choose to connect an anode to the metal components in the sump for corrosion protection and
  - The sump is not used for interstitial monitoring.

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

2. Spill Prevention Equipment Tests

What is EPA proposing?

In § 280.35, EPA is proposing owners and operators test spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) at installation and at least once every 12 months. This test must ensure spill prevention equipment is liquid tight by performing a vacuum, pressure, or liquid test according to one of the following:

- Requirements developed by the manufacturer (Note that owners and operators may use this option only if the manufacturer developed spill prevention equipment test requirements);
- Code of practice developed by a nationally recognized association or independent testing laboratory; or
- Requirements determined by the implementing agency to be no less protective of human health and the environment than the two bulleted items above.

Exception: EPA is proposing spill prevention equipment tests not be required in those situations where spill prevention equipment has two walls and the space between the walls is monitored continuously (interstitial monitoring) to ensure the integrity of both the inner and outer wall.

EPA is proposing owners and operators maintain the following:

- Records of spill prevention equipment tests for three years; or
- Documentation showing the spill prevention equipment has two walls and is monitored continuously for each spill prevention device installed at the facility. Owners and operators must maintain this documentation for as long as the spill prevention equipment is monitored continuously and for three additional years after continuous monitoring ends.

EPA is proposing owners and operators meet this requirement within one year after the effective date of the final UST regulation for existing UST systems and at installation for UST systems installed after the effective date of the final regulation.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing this change to help ensure small releases occurring when the delivery transfer hose is disconnected from the fill pipe are contained in the spill prevention equipment. Owners and operators need to properly operate and maintain their spill prevention equipment in order to prevent releases to the environment. If a small release occurs at the fill port and the spill prevention equipment is not liquid tight, then the release can exit the spill prevention equipment and reach the environment. EPA is aware of various problems with spill prevention equipment. Examples include damage due to: Vehicle drive over; ground movement or freeze/thaw cycles; inadequate installation practices; and normal wear and tear. In addition, the typical life of spill prevention equipment is about three to seven years, but the 1988 UST regulation does not have a replacement requirement. Today's proposed periodic spill prevention equipment test will minimize problems and ensure spill prevention equipment will contain small releases from the delivery hose when disconnected from the fill pipe.

EPA is proposing not to require owners and operators of double-walled spill prevention equipment with continuous interstitial monitoring to conduct annual tests because this spill prevention equipment is continuously checked for tightness through interstitial monitoring. EPA is proposing owners and operators in the monthly walkthrough inspections visually check continuous interstitial monitoring methods that do not alert the owner and operator with an alarm. Additional

information on these inspections is available in section B–1.

EPA is proposing to require vacuum, pressure, or liquid methods when testing spill prevention equipment. We believe these options provide owners and operators with significant flexibility for testing this equipment.

EPA is proposing to specifically allow owners and operators to use manufacturer's requirements or a code of practice developed by a nationally recognized association or independent testing laboratory for spill prevention equipment tests. The manufacturer's requirement is an option only when the manufacturer has developed a testing requirement. In response to today's proposed regulation, EPA anticipates nationally recognized associations or independent testing laboratories will develop codes of practice for spill prevention equipment tests and manufacturers will develop testing requirements. In addition, EPA is providing implementing agencies flexibility to allow other methods they determine to be as protective of human health and the environment as the manufacturer's requirements or a code of practice. This option allows alternatives in the event codes of practice and manufacturer's testing requirements are not developed.

EPA is proposing owners and operators conduct spill prevention equipment tests at least once every 12 months. We propose this frequency because spill prevention equipment is prone to problems that can occur over the course of a year and frequent tests will catch problems earlier. In addition, testing every 12 months is consistent with other testing requirements, such as annual automatic line leak detector testing, in the 1988 regulation.

EPA is proposing owners and operators maintain spill prevention equipment test records three years for each spill containment device at a facility. These records will enable implementing agencies to determine whether owners and operators conducted annual spill prevention equipment testing during the three year inspections required by the Energy Policy Act. These records will also demonstrate that owners and operators tested their spill prevention equipment, ensuring it will contain small drips and spills that can occur when the transfer hose is disconnected from the fill pipe. In order for double-walled spill prevention equipment with continuous interstitial monitoring to be exempt from spill prevention equipment tests, owners and operators will need to maintain documentation showing spill prevention equipment has two walls and uses continuous interstitial monitoring. In addition, EPA is proposing owners and operators maintain this documentation for three years after continuous interstitial monitoring ends. EPA is proposing maintaining this documentation so owners and operators can demonstrate compliance with the spill prevention equipment testing requirement.

What issues related to this change does EPA request comment or additional data on?

- Is a 12 month frequency an appropriate time frame for spill prevention equipment tests? For example, should EPA consider more frequent tests in sensitive areas, such as source water protection areas?
- Are there other acceptable test methods in addition to vacuum, pressure, or liquid spill prevention equipment tests?
- Is the one year time frame proposed for owners and operators to begin implementing this requirement reasonable?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

3. Overfill Prevention Equipment Tests

What is EPA proposing?

In § 280.35, EPA is proposing owners and operators test proper operation of overfill prevention equipment (automatic shutoff devices, flow restrictors, and high level alarms) at installation and at least once every three years. The test must ensure overfill prevention equipment is set to activate at the appropriate level in the tank (as specified in § 280.20(c)) and the equipment will activate when the regulated substance reaches that height. EPA is proposing owners and operators test according to one of the following:

- Requirements developed by the manufacturer (Note that owners and operators may use this option only if the manufacturer developed overfill prevention equipment test requirements);
- Code of practice developed by a nationally recognized association or independent testing laboratory; or
- Requirements determined by the implementing agency to be no less protective of human health and the environment than the two bulleted items above.

EPA is proposing owners and operators maintain records of overfill prevention equipment tests for three years for each overfill device installed at a facility.

For UST systems installed after the effective date of the final UST regulation, EPA is proposing owners and operators meet this requirement at installation. For UST systems installed on or before the final UST regulation is effective, EPA is proposing owners and operators meet this requirement within three years and according to the time frames in the following table:

PHASE-IN SCHEDULE FOR OVERFILL PREVENTION EQUIPMENT TESTS

Criteria	Date by which first test must be conducted
One or more USTs at the facility were installed on or before 12/22/1988	One year after effective date of rule.
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	Two years after effective date of rule.
All USTs at the facility were installed after 12/22/1998	Three years after effective date of rule.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing this change to help ensure overfill prevention equipment is operating properly and will activate before an UST is overfilled. Owners and operators need to properly operate and maintain their overfill prevention equipment in order to prevent releases to the environment. If overfill prevention equipment is not working properly, an UST can be overfilled and release product to the environment. EPA is aware that USTs are being overfilled and there are problems with overfill prevention equipment. Examples include: Tampering; improper use; and normal wear and tear. The proposed periodic overfill prevention equipment tests will minimize problems and ensure overfill prevention equipment is operating properly.

Overfill prevention test methods should not overfill the tank to determine whether overfill prevention equipment is operating properly. Rather, the equipment should be tested or inspected to determine whether it will operate or activate properly according to requirements set forth in the UST regulation. For example, a test or inspection for an automatic shutoff device in the fill pipe might include removing the device and checking it for the ability to operate and measuring the position of the device in the tank to determine whether it will activate at the correct height.

For overfill prevention equipment tests, EPA is proposing owners and operators use manufacturer's requirements or a code of practice developed by a nationally recognized association or independent testing laboratory. The manufacturer's requirement is an option only when the manufacturer has developed a testing requirement. In response to this proposed regulation, EPA anticipates nationally recognized associations or independent testing laboratories will develop codes of practice for overfill prevention equipment tests, and manufacturers will develop testing requirements. In addition, EPA is providing implementing agencies flexibility to allow other methods they determine to be as protective of human health and the environment as the manufacturer's requirements or a code of practice. This option allows alternatives in the event that codes of practice and manufacturer's testing requirements are not developed.

EPA is proposing owners and operators conduct overfill prevention equipment tests at least once every three years. We propose this frequency because overfill prevention equipment is less prone to problems than spill prevention equipment, but still needs periodic testing. In addition, a three year time frame is consistent with other testing requirements, such as cathodic protection testing and the proposed three year interstitial integrity testing.

EPA is proposing to stagger implementation over a three year period based on the installation date of the oldest UST at the facility. The proposed phase-in will require overfill prevention equipment in older UST systems that pose a greater risk to the environment to be tested first. The phase-in approach will allow overfill prevention equipment tests to be spread out and reduce the risk of a last-minute rush of owners and operators obtaining overfill prevention equipment tests at the end of the initial three-year period.

EPA is proposing owners and operators maintain overfill prevention equipment test records for three years for each overfill device at a facility. These records will demonstrate to implementing agencies that the overfill prevention equipment has been tested, is set at the appropriate height in the tank, and will activate when regulated substances reach that height. EPA is proposing owners and operators maintain records for three years to coincide with the three year inspection frequency required by the Energy Policy Act.

What issues related to this change does EPA request comment or additional data on?

- Is a three year frequency an appropriate time frame for overfill prevention equipment tests? For example, should EPA consider more frequent tests in sensitive areas such as source water protection areas? Should EPA consider less frequent testing?
- Should EPA consider owners and operators retain overfill prevention equipment test records for a different time frame?
- Is the three year time frame and phase-in proposed for owners and operators to begin implementing this requirement reasonable?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

4. Secondary Containment Tests

What is EPA proposing?

In § 280.36, EPA is proposing owners and operators test secondary containment areas that use interstitial monitoring at least once every three years. A secondary containment test (also called an interstitial integrity test) is performed in the space between tank walls, pipe walls, or in a secondary containment sump area and ensures the area being tested has integrity and will contain a leak. Secondary containment areas include tank and piping interstitial areas, as well as containment sumps used as part of the piping secondary containment and interstitial monitoring. EPA is proposing owners and operators test interstitial integrity areas using a vacuum, pressure, or liquid method according to one of the following:

- Requirements developed by the manufacturer (Note that owners and operators may use this option only if the manufacturer developed interstitial integrity test requirements);
- Code of practice developed by a nationally recognized association or independent testing laboratory; or
- Requirements determined by the implementing agency to be no less protective of human health and the environment than the two bulleted items above.

Exceptions: EPA is proposing the following exceptions apply to interstitial integrity tests:

- *Tanks*—Owners and operators using continuous interstitial monitoring on their tanks will not be required to perform periodic interstitial integrity tests.
- *Piping*—Owners and operators using vacuum monitoring, pressure monitoring, or liquid-filled interstitial space monitoring on their underground piping will not be required to perform periodic interstitial integrity tests.
- *Containment sumps*—Owners and operators using containment sumps which have two walls and continuously monitor the interstitial space between the walls for releases will not be required to perform interstitial integrity tests.

EPA is proposing owners and operators maintain the following:

- Records of interstitial integrity tests for three years; or
- Documentation demonstrating that the tanks, piping, or containment sumps are not required to have a periodic interstitial integrity test according to the exceptions above. Owners and operators must maintain this documentation for as long as the tank, piping, or containment sump uses one of the continuous methods listed in the exceptions and for three additional years after continuous monitoring ends.

For UST systems installed after the effective date of the final UST regulation, EPA is proposing owners and operators meet this requirement at installation. For UST systems installed on or before the final UST regulation is effective, EPA is proposing owners and operators meet this requirement within three years and according to the time frames in the following table:

PHASE-IN SCHEDULE FOR INTERSTITIAL INTEGRITY TESTS

Criteria	Date by which first test must be conducted
One or more USTs at the facility were installed on or before 12/22/1988	One year after effective date of rule.
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	Two years after effective date of rule.
All USTs at the facility were installed after 12/22/1998	Three years after effective date of rule.

This proposed requirement only applies to UST systems using interstitial monitoring. It does not apply to UST systems without secondary containment or those with secondary containment but not using interstitial monitoring for release detection.

Why is EPA proposing this change? What background information is available about this change?

The Energy Policy Act requires states that receive federal Subtitle I money implement additional measures to protect groundwater, either with secondary containment for new and replaced tanks and piping or financial responsibility for manufacturers and installers. 54 of 56 states have implemented the secondary containment option. To ensure secondary containment is working properly, the integrity of the interstitial space needs to be tested. Therefore, EPA is proposing periodic interstitial integrity tests of the interstitial space in secondarily-contained UST systems which use interstitial monitoring for release detection. These systems need to contain a leak until interstitial monitoring detects the regulated substance. Currently, EPA has no requirement for ensuring the integrity of secondary containment areas.

Since most states implemented the secondary containment requirements in the Energy Policy Act for most new and replaced tanks and piping, new and replaced UST systems will be secondarily contained with interstitial monitoring. This requirement signals a move from non-secondarily contained UST systems using methods of release detection that detect a release only after regulated substances have reached the environment to secondary containment with interstitial monitoring that identifies a problem before regulated substances reach the environment. Interstitial integrity tests will confirm for owners and operators that secondary containment will contain a leak until it is detected and the problem is repaired.

Some interstitial monitoring methods for tanks, piping, and containment sumps already continuously ensure the interstitial area's integrity. When an owner or operator uses one of these methods, EPA will not require periodic interstitial integrity tests.

• *Tanks*—According to EPA's source and cause of release information, tanks are not the leading source of releases [24] [25] In addition, tanks are nearly always constructed in a factory under controlled conditions, making it less likely problems will occur in interstitial areas after installation. For these reasons, EPA proposes not to require owners and operators to conduct periodic interstitial integrity tests of tanks using continuous interstitial monitoring. Methods of continuous interstitial monitoring for tanks include liquid filled, vacuum, pressure, and sensors in the interstitial space.

• *Piping*—EPA's source and cause of release information shows that a significant number of releases occur from piping.[26] [27] In addition, piping and containment sumps are assembled in the field during the installation process, potentially creating increased opportunities for releases. Therefore, unless owners and operators use continuous liquid-filled, vacuum, or pressure interstitial monitoring for piping release detection, EPA is proposing to require periodic interstitial integrity testing for piping. For example, owners and operators who choose to use sensors in containment sumps for piping interstitial monitoring must also perform three year interstitial integrity tests of the piping interstitial space.

• *Containment sumps*—Similar to piping, EPA's source and cause of release information shows that a significant number of releases occur in containment sump areas. EPA is also aware of issues with the tightness of containment sumps. Based on this information, EPA is proposing owners and operators conduct periodic interstitial integrity tests of containment sumps used for piping interstitial monitoring, unless the containment sump has two walls and the interstitial space between the walls in the sump is continuously monitored. For example, if an owner or operator has a double-walled containment sump and uses a sensor, vacuum, pressure, or liquid-filled interstitial area to continuously monitor the space between the two walls, then periodic interstitial integrity tests of that sump are not required under this proposal. Owners and operators of double-walled sumps without continuous interstitial monitoring must perform three year interstitial integrity tests.

Continuous interstitial monitoring means the secondary containment space is monitored all the time by a method or device and owners and operators check the continuous monitoring method or device for a leak at least once every 30 days. In addition, owners and operators must immediately respond to any alarms they encounter. Methods of continuous interstitial monitoring include vacuum, pressure, and liquid-filled interstitial areas along with sensors and probes located in the interstitial area.

EPA is proposing owners and operators conduct interstitial integrity tests for tanks, piping, and sumps at least once every three years. EPA is proposing this frequency because we believe secondarily contained UST systems are much less prone to releases than single-walled UST systems. However, since owners and operators are relying on the interstitial space to detect problems, the interstitial areas still need periodic tests to ensure proper operation and maintenance. A three year time frame is consistent with other testing requirements, such as cathodic protection testing and the proposed overfill prevention equipment testing.

EPA is proposing to stagger implementation over a three year period based on the installation date of the oldest UST at the facility. The proposed phase-in will require older UST systems that may pose a greater risk to the environment to be tested first. The phase-in approach will allow interstitial tests to be spread out and reduce the risk of a last-minute rush of owners and operators obtaining tests at the end of the initial three-year period.

[24] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[25] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

[26] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[27] Evaluation Of Releases From New And Upgraded Underground Storage Tanks, Peer Review Draft, U.S. EPA/OUST, August 2004.

EPA is proposing owners and operators maintain interstitial integrity test records for three years for each regulated tank, pipe, and containment sump at a facility or maintain documentation demonstrating periodic interstitial integrity tests are not required. Documentation supporting that periodic interstitial integrity tests are not required could include: the tank or piping uses vacuum, pressure, or liquid-filled interstitial monitoring; the tank uses continuous interstitial sensors for interstitial monitoring; or the containment sump has two walls and the space between the containment sump walls is continuously monitored. In addition, EPA is proposing owners and operators maintain this documentation for three years after continuous interstitial monitoring ends. EPA is proposing owners and operators maintain this documentation so they can demonstrate to implementing agencies compliance with the interstitial integrity test requirement. This documentation coincides with the three year inspection requirements in the Energy Policy Act.

What issues related to this change does EPA request comment or additional data on?

- Is a three year frequency an appropriate time frame for interstitial integrity tests? For example, should EPA consider more frequent tests in sensitive areas such as source water protection areas?
- Should EPA consider owners and operators retain records of interstitial integrity tests for a different time frame?
- Should EPA consider interstitial integrity tests for tanks using continuous interstitial sensors? Should EPA consider limiting this exclusion to discriminating sensors?
- Is there a need for a phased-in schedule to implement this requirement? Is the three year time frame and phase-in proposed for owners and operators to begin implementing this requirement reasonable?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

5. Operation and Maintenance Requirements for Release Detection Equipment

What is EPA proposing?

In § 280.40, EPA is proposing UST owners and operators perform annual operation and maintenance tests on electronic and mechanical components of their release detection equipment to ensure the equipment is operating properly. Owners and operators will be required to check the following equipment:

- ATG and other controllers
  - Test alarm;
  - Verify system configuration; and
  - Test battery back-up.
- Probes and sensors
  - Inspect for residual build-up;
  - Ensure floats move freely;
  - Ensure shaft is not damaged;
  - Ensure cables are free of kinks, bends, and breaks; and
  - Test alarm operability and communication with controller.
- Line leak detector
  - Simulate leak which determines capability to detect a leak; and
  - Inspect leak sensing o-ring.
- Vacuum pumps and pressure gauges
  - Ensure communication with sensors and controller.

EPA is proposing owners and operators meet this requirement according to one of the following: manufacturer's instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements developed by the implementing agency.

EPA is proposing owners and operators maintain records of the annual operation tests for three years. At a minimum, records must: list each component tested; indicate whether each component met the criteria listed above or needed to have action taken; and describe any action taken to correct an issue.

EPA is proposing owners and operators begin meeting this requirement no later than one year after the effective date of the final UST regulation.

Why is EPA proposing this change? What background information is available about this change?

EPA is concerned about the performance of release detection equipment. Inspectors routinely find release detection equipment installed on UST systems, but that equipment is not properly operated and maintained. In addition, information from an analysis in Florida indicates, ''Leak detection successfully detected 26 percent of all releases. Conversely, leak detection was specifically identified as failing to detect 23 percent of releases.'' The analysis also says the exact reason for the leak detection failure could not be determined. However, the analysis provided these possible reasons, ''* * * faulty equipment; improper installation; operation or maintenance; or insufficient performance standards.'' [28] To increase the effectiveness of release detection, EPA is targeting operation and maintenance.

The 1988 UST regulation in § 280.40(a)(2) requires that release detection ''Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition;''. Most owners and operators installed the required release detection equipment, but some owners and operators are not properly operating and maintaining their equipment. To achieve optimal performance from equipment and meet release detection requirements, it is important for UST system owners and operators to both install the equipment and properly operate and maintain it. In the 1988 UST regulation, EPA did not provide specifics on minimum requirements to ensure adequate operation and maintenance of release detection equipment. As a result, operation and maintenance requirements vary greatly, even between similar types of equipment.

Some manufacturers' requirements do not adequately address operation and maintenance. For example, some manufacturers only recommend operation and maintenance checks; but EPA is taking the position that checks should be mandatory instead of optional. In addition, similar release detection components should be tested in a similar manner, which will increase the likelihood all release detection equipment will function at optimal levels for as long as possible. California's in-field analysis of sensors used for release detection and anecdotal feedback supports EPA's belief. [29]

EPA is proposing this change to improve and standardize operation and maintenance for all release detection equipment. This proposed change will provide owners and operators with an understanding of equipment tests necessary to ensure equipment is properly operated and maintained. EPA is proposing a set of minimum operation and maintenance criteria owners and operators must follow for all electronic- and mechanical-based release detection equipment. EPA is also addressing equipment that is neither electronically nor mechanically based (for example,

[28] Petroleum Releases At Underground Storage Tank Facilities In Florida, Peer Review Draft, U.S. EPA/OUST, March 2005.

[29] California's ''Field Evaluation Of Underground Storage Tank System Leak Detection Sensors,'' August 2002. *http://www.waterboards.ca.gov/water_issues/programs/ust/leak_prevention/sensors/index.shtml.*

bailers and measuring sticks used for activities such as statistical inventory reconciliation [SIR]) separately under the walkthrough inspections section (see section B–1).

EPA based these proposed operation and maintenance minimum requirements for release detection on common requirements and recommendations by various equipment manufacturers of similar equipment. EPA used the National Work Group on Leak Detection Evaluation's (NWGLDE) list of leak detection equipment to identify commonly used equipment.[30] In addition, EPA's publication, *Operating And Maintaining Underground Storage Tanks Systems: Practical Help And Checklists* and Petroleum Equipment Institute's *Recommended Practices for the Inspection and Maintenance of UST Systems (RP 900)* also helped establish proper operation and maintenance activities.

Regarding our proposal to use a code of practice developed by a nationally recognized association or independent testing laboratory, EPA knows of one code of practice currently being developed that may address operability testing for release detection equipment. After that code of practice is final, EPA will review it and decide whether to include it in the final UST regulation.

EPA is proposing owners and operators maintain records of annual operation tests for three years. Results of tests must include: a list of each component tested; whether it tested acceptable or needed action; and a description of any action taken to correct an issue. Three years worth of records are consistent with the three year inspection cycle, and content of the records will allow owners and operators to demonstrate compliance with this operation and maintenance requirement.

Finally, EPA is allowing owners and operators up to one year from the effective date of the final UST regulation to meet this requirement. One year is consistent with the annual test frequency requirement already in place for automatic line leak detectors, and many third-party service providers nationwide already perform the testing.

What issues related to this change does EPA request comment or additional data on?

- Are the proposed minimum operation and maintenance requirements sufficient to cover release detection equipment on regulated UST systems?
- Are there additional performance tests EPA should consider?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

C. Addressing Deferrals

Note about the overlap of UST regulations and Spill Prevention Control and Countermeasures (SPCC) regulations: At the time of the 1988 UST regulation, facilities with an aggregate completely buried storage capacity greater than 42,000 gallons and located near navigable waters of the U.S. or adjoining shorelines were subject to both UST rules and SPCC rules. Since then, SPCC rules have been amended and the rule exempts completely buried storage tanks, as well as connected underground piping, underground ancillary equipment, and containment systems, when subject to the technical requirements of 40 CFR part 280. In today's proposal, EPA proposes to continue to defer the aboveground components associated with airport hydrant systems and USTs with field-constructed tanks. Only those deferred aboveground components will be subject to SPCC requirements. EPA is proposing to regulate the underground components associated with airport hydrant systems and USTs with field-constructed tanks. In addition, EPA is proposing to regulate wastewater treatment tank systems and UST systems that store fuel solely for use by emergency power generators deferred under the 1988 regulation. Once the proposal becomes final, these UST systems will no longer be subject to SPCC requirements.

1. Emergency Power Generator UST Systems

What is EPA proposing?

EPA is proposing to eliminate the current deferral in § 280.10(d) for UST systems storing fuel solely for use by emergency power generators. This means emergency power generator USTs will no longer be deferred from release detection requirements in 40 CFR part 280, subpart D and will be subject to all UST requirements.

In addition, EPA is proposing that, no later than 30 days after the effective date of the final UST regulation, owners of UST systems storing fuel solely for use by emergency power generators notify appropriate implementing agencies that their systems exist.

EPA is proposing owners and operators of UST systems storing fuel solely for use by emergency power generators begin meeting these requirements as follows:

- For systems installed after the effective date of the final UST regulation, at the time of installation.
- For systems installed on or before the effective date of the final UST regulation, within one year of the effective date of the final UST regulation.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing to regulate UST systems storing fuel solely for use by emergency power generators because our previous rationale for deferring release detection no longer applies. To allow time for developing workable release detection requirements, EPA in the 1988 UST regulation deferred release detection requirements for UST systems storing fuel solely for use by emergency power generators. The 1988 UST regulation preamble indicated that monthly monitoring requirements were unworkable because these tanks often were located at unmanned stations in remote areas and visited infrequently.

EPA always intended for these systems to meet release detection requirements when appropriate release detection methods became available. Since the 1988 UST regulation, release detection technologies have matured greatly. In addition, technology is now available to perform release detection at remote sites. Emergency generator tanks and piping can now be monitored for releases by the majority of methods listed in § 280.43. EPA estimates about 30 percent of active UST systems storing fuel solely for use by emergency power generators already have release detection.

Effective remote monitoring methods for release detection are now available and used to monitor unmanned UST systems storing fuel solely for use by emergency power generators. Numerous contractors perform remote monitoring for releases at these unmanned sites. Remote monitors transmit visual or audible alarms to a receiving console at a manned location when there is a suspected or confirmed release. This provides owners and operators with real-time release detection data for immediate response to suspected or confirmed releases at sites with unmanned UST systems storing fuel solely for use by emergency power generators.

Emergency power generator UST systems are located throughout the

[30] National Work Group On Leak Detection Evaluation's (NWGLDE) List Of Leak Detection Evaluations For Storage Tank Systems: *http://www.nwglde.org/*.

country. EPA's review of several state databases revealed these systems are located at hospitals, universities, communication utilities, military installations, and other locations relying on backup power sources. EPA estimates UST systems storing fuel solely for use by emergency power generators now represent approximately 3 percent of the active tank population.[31]

Additionally, 21 states currently require release detection for emergency power generator UST systems. Automatic tank gauging and secondary containment with interstitial monitoring are the most common release detection methods used for tanks associated with these systems. Line tightness testing, line leak detectors, or secondary containment with interstitial monitoring are the most common release detection methods used for piping. Note that safe suction piping does not require release detection. With technology now available to detect releases from emergency power generator UST systems and because these systems pose the same risk to human health and the environment as any other UST system, EPA is proposing to remove the deferral from release detection.

EPA is proposing owners and operators of emergency power generator UST systems installed on or before the effective date of the final UST regulation begin performing release detection within one year of the effective date of the final regulation. EPA is taking the position that one year is reasonable because these USTs are fully regulated except for release detection, and some are already performing release detection. After the effective date of the final regulation, all emergency power generator UST systems must include release detection when installed.

Notification

To make implementing agencies aware that emergency power generator UST systems exist, EPA is proposing owners of these systems submit a one-time notification to the implementing agency. Owners must notify within 30 days of the effective date of the final regulation. This will allow implementing agencies to include emergency power generator UST systems in their inventories.

What issues related to this change does EPA request comment or additional data on?

- Is EPA's estimate of 3 percent for UST systems storing fuel solely for use by emergency power generators accurate?
- Are there technical concerns EPA should address in requiring release detection for emergency power generator UST systems?
- Is EPA's estimate of 30 percent installed release detection on UST systems storing fuel solely for use by emergency power generators accurate?
- How many UST facilities have 10 or more emergency power generator UST systems? Who owns these facilities?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

2. Airport Hydrant Fuel Distribution Systems

What is EPA proposing?

EPA is proposing to regulate currently deferred airport hydrant fuel distribution systems (also referred to as airport hydrant systems). This means airport hydrant systems will no longer be deferred from the requirements of 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*); C (*General Operating Requirements*); D (*Release Detection*); E (*Release Reporting, Investigation, and Confirmation*); G (*Out-of-Service UST Systems and Closure*); and H (*Financial Responsibility*).

Airport hydrant systems installed on or before the effective date of the final UST regulation must begin meeting the requirements of subparts B (except § 280.22) and C within three years of the effective date of the final UST regulation, subpart D according to the schedule in the table below, and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. Airport hydrant systems installed after the effective date of the final UST regulation must meet these requirements at the time of installation. Airport hydrant systems with aboveground storage tanks (ASTs) directly connected to the underground hydrant piping are not regulated UST systems under 40 CFR part 280, unless 10 percent or more of the total capacity of the system, including underground piping, is beneath the surface of the ground.

SCHEDULE FOR PHASE IN OF SUBPART D

Component and type of release detection used	Time frame (after [effective date of rule])	Description of requirement
Piping using periodic pressurized bulk line tightness testing.	Within three years.	Conduct one piping tightness test according to the bulk line tightness testing requirement using the maximum detectable leak rates for semiannual testing. For bulk piping segments not capable of meeting the 3.0 gallon per hour leak rate, owners and operators may use a leak rate of up to 6.0 gallons per hour.
	Between years three and six	
	Between years six and seven.	Conduct one piping tightness test according to the bulk line tightness testing requirement using the maximum detectable leak rates for semiannual testing.
	After year seven.	Begin conducting piping tightness testing according to the bulk line tightness testing requirement.
All other piping and tank release detection methods.	Within three years.	Perform release detection according to this subpart.

EPA is proposing to define an airport hydrant fuel distribution system as an UST system that is a combination of one or more tanks directly connected to underground hydrant piping used to fuel aircraft. These systems do not have a dispenser at the end of the piping run, but rather a hydrant (fill stand). If an AST is feeding an intermediary tank or

[31] Industrial Economics, Inc., ''Detailed Assessment of UST Universe by Tank Use and Industry Sector,'' Work Assignment 1–15, Task 6, January 23, 2009.

tanks, this proposed definition does not include the AST, but does include all underground piping entering and leaving intermediary tanks and the intermediary tank(s). Intermediary tanks are those tanks directly connected to the hydrant piping.

Release Detection—Tanks

EPA is proposing airport hydrant system tanks installed prior to the effective date of the final UST regulation meet these requirements:

• The following tanks must be monitored using release detection methods specified in § 280.43.

○ Shop fabricated tanks.

○ Field-constructed tanks with a capacity less than or equal to 50,000 gallons.

• Field-constructed tanks with capacity greater than 50,000 gallons must either be monitored using release detection methods specified in § 280.43 or use one of the alternatives for tanks listed in section C–3—UST Systems With Field-Constructed Tanks.

EPA is proposing new or replaced airport hydrant system tanks installed after the effective date of the final UST regulation be secondarily contained and perform interstitial monitoring according to § 280.43(g).

Release Detection—Piping

EPA is proposing airport hydrant system piping meet these release detection requirements:

• Piping must be monitored using release detection methods specified in § 280.44; or

• Use one of these alternatives:

Perform a semiannual or annual bulk line tightness test at or above operating pressure in accordance with the table below. Bulk piping segments ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the schedule in § 280.40(c):

MAXIMUM DETECTABLE LEAK RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test maximum detectable leak rate (gallons per hour)	Annual test maximum detectable leak rate (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

The bulk line tightness test must be capable of detecting the maximum detectible leak rate listed in the table above with a probability of detection of 0.95 and a probability of false alarm of 0.05.

○ Perform continuous interstitial monitoring designed to detect a release from any portion of the underground piping that routinely contains product according to § 280.43(g).

○ Use an automatic line leak detector that alerts the presence of a leak by restricting or shutting off flow of regulated substances through piping or triggering an audible or visual alarm. This method may be used only if it can detect a leak of three gallons per hour at 10 pounds per square inch line pressure within one hour or equivalent. When using this method, also:

–At least every three months, perform interstitial monitoring, designed to detect a release from any portion of the underground piping that routinely contains product, according to § 280.43(g); and

–Conduct an annual leak detector operation test according to § 280.40(a)(3).

○ The implementing agency may approve another method if the owner and operator can demonstrate the method can detect a release as effectively as any of the other three methods. In comparing methods, the implementing agency shall consider the size of release the method can detect and frequency and reliability of detection. Owners and operators must comply with conditions imposed by the implementing agency.

All recordkeeping requirements in § 280.45 apply to these proposed release detection methods.

Release Prevention

EPA is proposing airport hydrant systems meet corrosion protection, spill, and overfill requirements. For corrosion protection, EPA is proposing airport hydrant systems meet one of these:

• The new tank and piping standards described in § 280.20; or

• Airport hydrant systems installed on or before the effective date of the final UST regulation can be constructed of metal and cathodically protected according to a code of practice developed by a nationally recognized association or independent testing laboratory and meet the following:

○ Field installed cathodic protection systems must be: designed by a corrosion expert; designed to allow for the determination of current operating status for impressed current systems; and operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; and

○ Tanks greater than 10 years old without cathodic protection must be assessed to ensure they are structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method the implementing agency determines adequately assesses the tank for structural soundness and corrosion holes.

EPA is proposing airport hydrant systems installed on or before the effective date of the final UST regulation that are not upgraded according to § 280.21 within three years of the effective date of the final UST regulation be permanently closed according to § 280.70. EPA is proposing internal lining not be allowed for meeting the corrosion protection upgrade requirement.

EPA is proposing to exclude new and replaced piping in airport hydrant systems from secondary containment requirements in § 280.20(b).

Notification

EPA is proposing that, no later than 30 days after the effective date of the final UST regulation, owners of regulated airport hydrant systems installed prior to the effective date of final UST regulation notify appropriate implementing agencies that their systems exist.

Financial Responsibility

EPA is proposing airport hydrant systems no longer be deferred. This means airport hydrant systems that have not been permanently closed will be

subject to financial responsibility requirements in subpart H.

Deferred Components

Aboveground components of airport hydrant systems are currently regulated by SPCC because they are not fully regulated under the UST regulations.[32] EPA is proposing to continue deferring aboveground tanks associated with airport hydrant systems that meet the UST system definition from the requirements of subparts B, C, D, E, and G.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing to regulate airport hydrant systems because a release from one of these systems may pose a significant threat to human health and the environment. In addition, technology is now available for release prevention and adequate release detection monitoring. In some cases airport hydrant system piping stores millions of gallons of fuel; airport hydrant systems handle large volumes of regulated substances on a daily basis. Leaks from underground piping and other appurtenances can contaminate subsurface soil beneath the airport apron and runways, groundwater, and nearby surface water. Even though there is a small universe of these systems, mainly owned by the Department of Defense (DoD), evidence shows a substantial release can have a major impact on the environment.

For example, at Pease Air Force Base, jet fuel was delivered to the runway apron via an underground fueling system. Throughout the life of the system, releases contaminated soils and groundwater, forming plumes of regulated substances in the groundwater.[33] A site release study identified 60 to 70 release points with varying degrees of severity along the refueling system line. Free product was found under the apron when the systems were closed.[34] There are no available historical records showing the sources of release or the volumes of regulated substances released. However, the presence of soil and groundwater contamination poses a significant threat to public health and the environment.

In the 1988 UST regulation, EPA deferred airport hydrant systems because release detection and prevention technologies were not readily available for these unique systems. Given current availability of those technologies, requiring release prevention equipment and regular release detection tests are keys to preventing and quickly identifying releases before they contaminate the surrounding environment. Additionally, 16 state UST programs which include approximately 40 percent of the existing universe of these UST systems, no longer defer airport hydrant systems and now regulate them.

EPA is proposing to define airport hydrant system in order to clarify which components of these systems will be regulated. There is currently some uncertainty about what an airport hydrant system is because of the lack of a federal definition and inconsistencies between different state definitions. Today's proposed definition of airport hydrant system clarifies which components will be regulated. Examples of tank and piping configurations for airport hydrant systems can be found in the docket for this proposed rulemaking.[35]

EPA is proposing airport hydrant systems installed on or before the effective date of the final UST regulation begin meeting the requirements of subparts B (except § 280.22) and C within three years of the effective date of the final UST regulation, subpart D according to the phase in schedule in the table above, and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. Airport hydrant systems installed after the effective date of the final UST regulation must meet all requirements at installation. Three years allows owners and operators enough time to implement the requirements of subparts B (except § 280.22) and C. EPA is providing a phase in period for bulk line tightness testing in subpart D to allow owners and operators ample time to upgrade their piping systems and meet the leak rate criteria. EPA is proposing to allow owners and operators for the first six years (two test periods) to meet a higher threshold of up to 6.0 gallons per hour for those piping segments that cannot meet the more stringent maximum 3.0 gallons per hour threshold due to technical reasons. These technical reasons include exceeding capabilities of currently available pressure-based methods to achieve the required leak rate. Currently available methods are capable of testing larger volume test sections to a leak rate of 6.0 gallons. The higher threshold of 6.0 gallons per hour provides for use of existing test methods during the first six year period. Six years will provide owners and operators time to upgrade their piping systems to meet the up to 3.0 gallon per hour threshold for semiannual testing. Between years six and seven of the phase in, EPA proposes to allow owners and operators to conduct one additional bulk tightness test that meets the semiannual testing threshold. Beginning in year seven, owners and operators must begin meeting the semiannual and annual bulk line tightness testing requirements described earlier in this section. For all other tank and piping release detection options, EPA is proposing a three year phase in because these methods will not require significant construction or upgrades for implementation. Finally, owners and operators can implement the requirements of § 280.22 of subpart B along with subparts E, G, and H beginning on the effective date of the final UST regulation because upgrades or special equipment are not needed to meet the requirements in these subparts.

Release Detection

EPA is proposing release detection for airport hydrant systems because, unlike in the 1980s, release detection technologies are now available. Airport hydrant systems typically consist of a series of large diameter shop-fabricated tanks; although some airport hydrant systems use field-constructed tanks. EPA is proposing release detection requirements for shop-fabricated tanks and field-constructed tanks in airport hydrant systems. See section C–3 for proposed release detection requirements for UST systems with field-constructed tanks.

EPA discussed airport hydrant systems in the 1988 UST regulation preamble. These systems were very large, contained great volumes of fuel (capacities in the millions of gallons), and consisted of miles of piping that was typically eight to 24 inches in diameter. Airport hydrant systems typically had cathodic protection and were monitored for releases periodically. Inventory control was often used, but the sensitivity of this technique was limited due to the large volume airport hydrant systems typically handled. No single leak test appeared to be an industry standard.

Between proposing and finalizing the 1988 UST regulation, EPA became

[32] Spill Prevention, Control, And Countermeasure Rule. *http://www.epa.gov/oem/content/spcc/index.htm.*

[33] New Hampshire Department of Environmental Services, Air Resources Division. 2009. Permit Application Review Summary, Former Pease AFB Remediation Project, 09–0113. 10 March 2010, see: *http://www2.des.state.nh.us/OneStopPub/Air/330159094909-0113TypeSummary.pdf.*

[34] Hilton, Scott. Site Summaries Pease Air Force Base Newington/Portsmouth. 2008. NH Department of Environmental Services. 10 March 2010 see: *http://des.nh.gov/organization/divisions/waste/hwrb/fss/superfund/summaries/pease.htm.*

[35] Example Tank and Piping Configurations for Airport Hydrant Systems developed by EPA/OUST.

aware of several airport hydrant system leaks that harmed the environment. However, limited information kept EPA from realizing the extent of airport hydrant system problems. At the time, EPA believed release detection was not feasible for airport hydrant systems. To allow more time to gather information, EPA deferred airport hydrant systems in the 1988 regulation from release detection requirements in subpart D as well as subparts B, C, E, G, and H requirements.

Over the last 20 years, the petroleum services industry developed release detection monitoring technologies for airport hydrant systems. NWGLDE's list in *Large Diameter Line Leak Detection Methods (6 Inches Diameter Or Above)*[36] identifies methods capable of detecting releases from airport hydrant systems.

EPA contacted several vendors to determine strengths and limitations of release detection methods for airport hydrant systems. EPA also talked with DoD's Defense Logistics Agency (DLA) Energy[37] about their challenges in addressing release detection requirements in states, such as California, which do not defer airport hydrant systems from release detection. DLA Energy also monitors airport hydrant systems in other states, which provides them with significant information about airport hydrant system release detection.

EPA acknowledges airport hydrant systems vary greatly and most of these systems cannot meet underground piping release detection requirements in the 1988 UST regulation because of issues such as time to conduct the test and leak rate thresholds. Nonetheless, other release detection methods are currently available to monitor airport hydrant systems. EPA is not proposing release detection methods monitor at the same leak rate or frequency as pressurized piping systems at retail service stations. Standard release detection systems can successfully test and detect releases on USTs and pressurized piping at retail service stations, but cannot achieve the same accuracy within a reasonable time frame on underground piping in airport hydrant systems. The large diameters and varying pipe lengths in airport hydrant systems introduce variables that prohibit accurate monitoring at leak rates within a reasonable time frame required in the 1988 UST regulation.

Compared to typical retail service stations, airport hydrant systems have large product volume throughputs. The 1988 UST regulation release detection test methods are limited by volume. To produce accurate test results, underground hydrant system piping needs to be isolated in appropriately sized segments. Some airport hydrant systems have numerous isolation points with available connections for release detection equipment; others have up to one-half mile between underground piping segments available for accurate testing. The greater the volume of a segment, the more time it takes to obtain a valid result at a given leak rate.

Product temperature fluctuations present challenges for release detection testing of airport hydrant system piping. As temperatures fluctuate, product expands or contracts, increasing or decreasing product volume and pressure. Fluctuating line pressure during a release detection test can mask an existing release or falsely indicate one occurred. To lessen this, an out of service period when testing large diameter airport hydrant piping could range from one to several days after the last product transfer in order to meet maximum leak detection rates in the 1988 UST regulation. Removing airport hydrant systems from service for these extended periods will greatly impede their purpose. In contrast, out of service periods on underground piping at retail service stations can last up to several hours after the last product transfer prior to pressure testing.

Although technology is available, it would be cost prohibitive and require significant facility down time for owners and operators to monitor airport hydrant systems for releases at the rates and frequencies required in the 1988 UST regulation.[38] As a result, EPA is proposing several options for owners and operators to meet the release detection requirement. These options provide flexibility for a wide variety of airport hydrant systems. In those instances where airport hydrant systems can meet the release detection methods in § 280.43 and § 280.44, owners and operators may use those methods. EPA is also proposing the following four alternatives to meet the airport hydrant system release detection requirement for piping.

- Perform semiannual or annual bulk line testing at or above operating pressure with a probability of detection of 0.95 and a probability of false alarm of 0.05. EPA thinks this will be the most frequently used method due to cost and minimal impact on down time for the piping system. It allows owners and operators to meet a variable leak rate based on piping test section volume. The leak rate ranges from one to three gallons[39] per hour, depending on piping volume for semiannual testing and from 0.5 to 1.5 gallons per hour for annual testing. EPA is proposing three gallons per hour as the maximum threshold because the majority of available bulk line testing methods are capable of meeting this leak detection rate. To effectively detect leaks from the pressurized piping systems, industry practice involves performing pressure-based testing at levels above standard operating pressure. EPA is proposing requiring a test pressure at or above operating pressure in consideration of these bulk piping systems typically operating at pressures much higher than conventional gasoline stations. Testing at 1.5 times operating pressure may not be practical or safe for these piping systems. The probabilities of detection and false alarm are consistent with the line leak detection requirements in the 1988 UST regulation.
- *Use continuous interstitial monitoring*—This monitoring method is designed to detect a release from any portion of the underground piping that routinely contains product; it must operate in an uninterrupted manner. EPA considered requiring an automatic line leak detector in combination with this alternative method, similar to conventional pressurized piping requirements in the 1988 UST regulation. However, conventional line leak detectors today cannot properly operate on bulk pressurized piping in airport hydrant systems.
- *Use an automatic line leak detector*—Conventional pressurized piping systems operate at a significantly lower pressure than airport hydrant systems. In addition, EPA is not aware of a line leak detector that adequately detects releases on airport hydrant systems. Yet because some states regulate airport hydrant systems and industry has experience with these systems, comparable release detection technology may be developed in the future. With that in mind, EPA is

[36] National Work Group On Leak Detection Evaluation's (NWGLDE) List Of Leak Detection Evaluations For Storage Tank Systems: *http://www.nwglde.org/.*

[37] Defense Logistics Agency Energy was formerly known as Defense Energy Support Center (DESC).

[38] See section F of this preamble and Regulatory Impact Analysis (RIA) for the proposed rule, available as a separate document in the docket, for information on the cost differences between meeting conventional release detection requirements and the proposed alternative requirements for airport hydrant systems and UST systems with field-constructed tanks.

[39] Owners and operators of bulk piping systems with test section volumes of 100,000 gallons or greater, due to technical reasons discussed in this section, may test their systems at a higher threshold of up to 6.0 gallons per hour within the six year phase-in period.

proposing line leak detectors be capable of detecting a release rate of three gallons per hour at 10 pounds per square inch line pressure within one hour or equivalent. This is consistent with the 1988 UST regulation. To detect a release from any portion of the underground piping that routinely contains product, EPA is proposing to combine this alternative with interstitial monitoring performed at least once every three months. This combination will quickly detect catastrophic releases while checking for much smaller problems on a less frequent—every three month—basis. Owners and operators will be required to conduct an annual test of the line leak detector's operation according to the final UST regulation. See section B–5 for more information on the annual test.

• Approval by the implementing agency of another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods listed above—The implementing agency must consider the size of the release that the method can detect as well as the frequency and reliability of detection when comparing methods. Owners and operators must comply with any conditions imposed by the implementing agency on the method's use.

Release Prevention

In § 280.20, EPA is proposing new or replaced tanks and piping have secondary containment with interstitial monitoring. Airport hydrant systems' piping ranges from eight to 24 inches in diameter with very long lengths, sometimes miles. In contrast, pressurized piping at a typical retail gas station is two inches in diameter with relatively short lengths.

EPA discussed with DLA Energy and industry the feasibility of installing secondary containment on piping associated with airport hydrant systems. These systems, primarily located on military installations, are complex and lack similarity. EPA is taking the position that installing secondary containment on airport hydrant system piping may be impracticable.

To detect a leak, secondary containment must be a liquid tight barrier designed to hold the leak between the tank and the barrier. Piping is sloped in fractions of an inch per foot of piping run to direct a leak toward the interstitial monitor. Because airport hydrant system piping lengths can typically be thousands of feet, it would be very difficult to install a system with enough slope that could adequately monitor the lowest point of a piping run. In addition, variable sized fittings are needed to join different diameters of piping, increasing the complexity of installing secondary containment. Finally, airport hydrant system piping is normally constructed of steel. Condensation can accumulate between the inner and outer walls, promoting corrosion of both pipe walls in the interstitial space and increasing the likelihood of a release to the environment.

EPA acknowledges engineering and design challenges (that is, varying piping diameter and length, along with corrosion) that can occur when providing secondary containment for piping associated with airport hydrant systems.[40] Therefore, EPA is proposing not to require this piping meet secondary containment requirements. However, EPA is proposing new and replaced underground tanks associated with airport hydrant systems meet secondary containment requirements. See section A–2 for more information about proposed secondary containment requirements for tanks.

As with all other regulated UST systems, EPA is proposing all airport hydrant systems meet corrosion protection requirements. Because interim prohibition has been in effect since May 1985, these systems generally are already equipped with corrosion protection (that is, constructed of: non-corrodible material; coated and cathodically protected steel; fiberglass reinforced plastic; or steel tank clad with fiberglass reinforced plastic).

EPA is proposing not to allow adding internal lining as a means of corrosion protection for tanks in airport hydrant systems that are not already upgraded. In the 1988 UST regulation, EPA allowed internal lining as a corrosion protection upgrade, but stated in the preamble that internal lining of steel tanks was a temporary upgrade to meet corrosion protection requirements, only if the lining continued meeting original design specifications. After 1998, if an inspected lining did not meet original design specifications and could not be repaired according to industry codes, it no longer met the upgrade requirements and had to be replaced. In addition, lining inspections show there are issues with internal linings.[41] Reports of premature failures due to improper installation cause additional concerns about the long-term integrity of the lining.[42] A study of lined tanks up to12 years old concluded that 44 percent of tanks' linings were cracked, discolored, and flaked from tank walls.[43] If internal lining fails, the chance of a leak into the environment is greater when there is no external corrosion protection on the tank. Because of these concerns, EPA is proposing internal lining not be an option for meeting the corrosion protection requirements for tanks in airport hydrant systems.

As with all other regulated UST systems, EPA is proposing airport hydrant systems meet spill and overfill requirements to prevent releases to the environment. After discussion with industry and DLA Energy, EPA is taking the position that existing airport hydrant systems are already equipped with spill prevention devices that will adequately prevent spills and overfills.

Airport hydrant systems installed on or before the effective date of the final UST regulation that do not meet the upgrade requirements within three years after the effective date of the rule must be permanently closed according to § 280.70. EPA is requiring permanent closure to prevent releases to the environment from airport hydrant systems that have not been upgraded.

Notification

To make implementing agencies aware airport hydrant systems exist, EPA is proposing owners of these systems submit a one-time notification to the implementing agency. Owners must notify within 30 days of the effective date of the final regulation. This will allow implementing agencies to include airport hydrant systems in their inventories.

Financial Responsibility

Because EPA is proposing to eliminate the deferral for airport hydrant systems, they will no longer be exempt from financial responsibility requirements in subpart H. Owners and operators will be required to comply by the effective date of the final UST regulation. The 1988 UST financial responsibility regulation exempts state and federal entities. Therefore, federal and state owners and operators of airport hydrant systems will not have to meet the financial responsibility requirement. Nearly all airport hydrant systems are owned by the federal government.

[40] DOD's DLA Energy, ''Response to EPA—Release Detection Point Paper,'' dated 03/10.

[41] LUSTLINE, Bulletin 38, June 2001. *http://www.neiwpcc.org/lustline/.*

[42] Wisconsin Department Of Commerce Web site: *http://www.commerce.state.wi.us/er/pdf/bst/ProgramLetters_PL/ER-BST-PL-LINING.pdf.*

[43] LUSTLINE, Bulletin 30, September 1998. *http://www.neiwpcc.org/lustline/.*

Deferred Components

EPA is proposing to continue deferring aboveground tanks associated with airport hydrant systems from the requirements of subparts B, C, D, E, and G. EPA regulates underground storage tanks and piping through 40 CFR part 280 and aboveground tanks through 40 CFR part 112 (Oil Pollution Prevention). Facilities with 1,320 gallons of aboveground oil storage capacity that could reasonably be expected to discharge oil into navigable waters or adjoining shoreline are subject to the SPCC regulation, under the authority of the Clean Water Act (CWA).[44] The SPCC regulation includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines.[45] The SPCC regulation requires periodic integrity testing and inspection of bulk storage containers and periodic integrity testing and leak testing of valves and piping associated with containers. The SPCC regulation also requires regulated facilities prepare and maintain a written plan that includes measures to prevent, prepare for, and respond to oil discharges that threaten navigable waters and adjoining shorelines. For these reasons, we believe the SPCC regulation is the most effective means of addressing aboveground tanks associated with airport hydrant systems.

What issues related to this change does EPA request comment or additional data on?

- Are the release detection options and time frames appropriate and sufficient?
- Is the performance requirement of three gallons per hour at 10 pounds per square inch line pressure within one hour or equivalent proposed for line leak detectors for bulk piping appropriate?
- Should EPA consider including specific requirements for non-pressurized piping tightness testing methods such as chemical marker methods? If so, what should those requirements be?
- Are there other release detection options EPA should consider?
- In order to address potential concerns associated with over pressurizing bulk piping systems, EPA proposed testing at the system's operating pressure instead of above it. EPA understands there are industry standards that recommend testing above operating pressure. Is testing these systems at operating pressure sufficient? Please provide specific detail to accompany your answer.
- Is the definition of airport hydrant fuel distribution system clear and appropriate?
- Are you aware of any releases from airport hydrant systems? If so, what were the sources, causes, and impacts to the environment?
- Should EPA consider revising the date in 280.73 for previously deferred UST systems? Revision of this date would mean that these UST systems closed prior to the effective date of the final rule would not have to meet Subpart G unless the implementing agency directs otherwise based on a current or potential threat to human health and the environment. How many of these UST systems have been closed since December 22, 1988?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

3. UST Systems With Field-Constructed Tanks

What is EPA proposing?

EPA is proposing to regulate currently deferred UST systems with field-constructed tanks. This means field-constructed tanks will no longer be deferred from the requirements of 40 CFR part 280, subparts B (*UST Systems: Design, Construction, Installation and Notification*), C (*General Operating Requirements*), D (*Release Detection*), E (*Release Reporting, Investigation, and Confirmation*), G (*Out-of-Service UST Systems and Closure*), and H (*Financial Responsibility*).

UST systems with field-constructed tanks installed on or before the effective date of the final UST regulation must begin meeting the requirements of subparts B (except § 280.22) and C within three years of the effective date of the final UST regulation, subpart D according to the schedule in the table below, and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. UST systems with field-constructed tanks installed after the effective date of the final UST regulation must meet these requirements at the time of installation.

SCHEDULE FOR PHASE IN OF SUBPART D

Component and type of release detection used	Time frame (after [effective date of rule])	Description of requirement
Piping using periodic pressurized bulk line tightness testing.	Within three years. Between years three and six.	Conduct one piping tightness test according to the bulk line tightness testing requirement using the maximum detectable leak rates for semiannual testing. For bulk piping segments not capable of meeting the 3.0 gallon per hour leak rate, owners and operators may use a leak rate of up to 6.0 gallons per hour.
	Between years six and seven.	Conduct one piping tightness test according to the bulk line tightness testing requirement using the maximum detectable leak rates for semiannual testing.
	After year seven.	Begin conducting piping tightness testing according to the bulk line tightness testing requirement.
All other piping and tank release detection methods.	Within three years.	Perform release detection according to this subpart.

[44] Overview Of Oil Pollution Prevention Regulations. *http://www.epa.gov/oem/content/lawsregs/opprover.htm.*

[45] Spill Prevention, Control, And Countermeasure Rule. *http://www.epa.gov/oem/content/spcc/index.htm.*

Release Detection—Tanks

EPA is proposing that UST systems with field-constructed tanks installed prior to the effective date of the final UST regulation meet these release detection requirements:

- Field-constructed tanks with capacity less than or equal to 50,000 gallons must be monitored using the release detection methods in § 280.43.
- Field-constructed tanks with a capacity greater than 50,000 gallons must either be monitored using release detection methods in § 280.43 or use one of these alternatives:
  - Conduct an annual bulk tank tightness test that can detect a 0.5 gallon per hour leak rate;
  - At least once every 30 days, use an automatic tank gauging system to perform release detection, which can detect a leak rate of one gallon per hour or less. At least every three years, this method must be combined with a bulk tank tightness test that can detect a 0.2 gallon per hour leak rate;
  - At least once every 30 days, use an automatic tank gauging system to perform release detection, which can detect a leak rate of two gallons per hour or less. At least every two years, this method must be combined with a bulk tank tightness test that can detect a 0.2 gallon per hour leak rate; or
  - The implementing agency may approve another method if the owner and operators can demonstrate the method can detect a release as effectively as any of the other three methods. In comparing methods, the implementing agency shall consider the size of release the method can detect and frequency and reliability of detection. Owners and operators must comply with conditions imposed by the implementing agency.

All bulk tank tightness testing must be capable of detecting leak rates with a probability of detection of 0.95 and a probability of false alarm of 0.05.

All recordkeeping requirements in § 280.45 apply to these proposed release detection methods.

Tanks associated with new or replaced UST systems with field-constructed tanks installed after the effective date of the final UST regulation must be secondarily contained and perform interstitial monitoring according to § 280.43(g).

Release Detection—Piping

EPA is proposing underground piping of UST systems with field-constructed tanks meet the release detection requirements for hydrant piping described in C–2—Airport Hydrant Fuel Distribution Systems.

Release Prevention

EPA is proposing UST systems with field-constructed tanks meet corrosion protection, spill, and overfill requirements. For corrosion protection, EPA is proposing UST systems with field-constructed tanks meet one of these:

- The new tank and piping standards described in § 280.20; or
- UST systems with field-constructed tanks installed on or before the effective date of the final UST regulation can be constructed of metal and cathodically protected according to a code of practice developed by a nationally recognized association or independent testing laboratory and meet the following:
  - Field installed cathodic protection systems must be: designed by a corrosion expert; designed to allow for the determination of current operating status for impressed current systems; and operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; and
  - Tanks greater than 10 years old without cathodic protection must be assessed to ensure they are structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method the implementing agency determines adequately assesses the tank for structural soundness and corrosion holes.

EPA is proposing UST systems with field-constructed tanks installed on or before the effective date of the final UST regulation that are not upgraded according to § 280.21 within three years of the effective date of the final UST regulation must be permanently closed according to § 280.70. EPA is proposing internal lining not be allowed for meeting the corrosion protection upgrade requirement.

EPA is proposing to exclude new and replaced piping of UST systems with field-constructed tanks from secondary containment requirements in § 280.20(b).

Notification

EPA is proposing that, no later than 30 days after the effective date of the final UST regulation, owners of regulated UST systems with field-constructed tanks notify appropriate implementing agencies that their systems exist.

Financial Responsibility

EPA is proposing UST systems with field-constructed tanks no longer be deferred. This means UST systems with field-constructed tanks that have not been permanently closed will be subject to financial responsibility requirements in subpart H.

Deferred Components

EPA is proposing to continue deferring aboveground tanks associated with UST systems with field-constructed tanks from the requirements of subparts B, C, D, E, and G.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing to regulate UST systems with field-constructed tanks because they are very large and pose a substantial threat to human health and the environment. Typical tank sizes range from 20,000 gallons to greater than two million gallons. The total universe of UST systems with field-constructed tanks is small. There are approximately 239 UST systems with field-constructed tanks.

Several releases from bulk field-constructed tanks have been recorded at the Craney Island Fuel Terminal in Portsmouth, VA.[46] For example, a 2.1 million gallon field-constructed UST system that operated from the 1950s to the mid 1980s released an estimated 300,000 to 500,000 gallons of product into the environment. Free product was found within 20 feet of a nearby creek, and the resulting plume covered more than five acres. Remediation efforts have been on-going since 1986. The release was attributed to tank and/or piping failures and possibly from a nearby tank that had a 127,000 gallon overfill in 1986. Another 2.1 million gallon field-constructed tank system that operated from the 1950s until 2000 released an estimated 175,000 to 250,000 gallons of jet fuel into the environment. The release was attributed to piping failures. The resulting plume covered three acres and threatened a nearby creek. In both of these examples, release prevention and release detection requirements could have reduced the severity of these releases and may well have prevented these releases.

EPA is also proposing this change because design and construction standards for UST systems with field-constructed tanks are now available. In the 1988 UST regulation preamble, EPA indicated tank design and construction methods for field-constructed tanks differed from factory-built tanks; we did not have sufficient time to develop an appropriate regulation related to design and construction for those tanks. Although design standards are now

[46] Virginia Department of Environmental Quality.

available for aboveground field-constructed tanks, EPA is not aware of standards written according to a national code of practice developed by a nationally recognized or independent testing laboratory. However, military construction standards, written as guidance for aboveground and underground storage tank construction projects on military installations, are available.[47] EPA considers current military construction standards appropriate to sufficiently address field-constructed tank design and construction. Implementing agencies may use military design and construction standards to address the site specific nature of field-constructed tank systems on military installations. Note that more stringent standards will prevail if a field-constructed tank is installed in a locale with more stringent design standards. EPA expects owners and operators to use these existing standards and specifications for design and construction of UST systems with field-constructed tanks.

EPA is proposing UST systems with field-constructed tanks installed on or before the effective date of the final UST regulation begin meeting the requirements of subparts B (except § 280.22) and C within three years of the effective date of the final UST regulation, subpart D according to the phase in schedule in the table above, and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. UST systems with field-constructed tanks installed after the effective date of the final UST regulation must meet all requirements at installation. Three years allows owners and operators enough time to implement the requirements of subparts B (except § 280.22) and C. EPA is providing a phase in period for bulk line tightness testing in subpart D to allow owners and operators ample time to upgrade their piping systems and meet the leak rate criteria. EPA is proposing to allow owners and operators for the first six years (two test periods) to meet a higher threshold of up to 6.0 gallons per hour for those piping segments that cannot meet the more stringent maximum 3.0 gallons per hour threshold, due to technical reasons. These technical reasons include exceeding capabilities of currently available pressure-based methods to achieve the required leak rate. Currently available methods are capable of testing larger volume test sections to a leak rate of 6.0 gallons. The higher threshold of 6.0 gallons per hour provides for use of existing test methods during the first six year period. Six years will provide owners and operators time to upgrade their piping systems to meet the up to 3.0 gallon per hour threshold for semiannual testing. Between years six and seven of the phase in, EPA proposes to allow owners and operators to conduct one additional bulk tightness test that meets the semiannual testing threshold. Beginning in year seven, owners and operators must begin meeting the semiannual and annual bulk line tightness testing requirements described earlier in this section. For all other tank and piping release detection options, EPA is proposing a three year phase in because these methods will not require significant construction or upgrades for implementation. Finally, owners and operators can implement the requirements of § 280.22 of subpart B along with subparts E, G, and H beginning on the effective date of the final UST regulation because upgrades or special equipment are not needed to meet the requirements in these subparts.

Release Detection

In the 1988 UST regulation, EPA deferred UST systems with field-constructed tanks in part due to lack of appropriate release detection methods. At that time, EPA believed the majority of release detection methods applied to factory-built tank systems and did not adequately work for UST systems with field-constructed tanks. Over the last 20 years, effective release detection methods for UST systems with field-constructed tanks have evolved. However, prescribed leak rates for field-constructed tanks differ from those in § 280.43 of the 1988 UST regulation, which generally apply to factory-built tanks. Additionally, 19 state UST programs, which include approximately 60 percent of the existing universe of these UST systems, now regulate UST systems with field-constructed tanks.

NWGLDE's list in *Bulk Underground Storage Tank Leak Detection Methods (50,000 Gallons or Greater)*[48] identifies several methods applicable to field-constructed tanks. Third party evaluators verified those release detection methods achieve a variety of performance standards. EPA contacted several vendors and DLA Energy to find out about their experiences with release detection methods for field-constructed tanks in states, such as California, which require UST systems with field-constructed tanks meet release detection requirements.

EPA recognizes that most release detection methods for factory-built tanks are capable of monitoring UST systems with field-constructed tanks up to 50,000 gallons. After evaluating current methods, EPA realized existing release detection options for tanks in § 280.41 of the 1988 UST regulation are generally not applicable to UST systems greater than 50,000 gallons because most methods are limited by tank capacity. As a result, EPA is proposing alternative release detection monitoring methods at different leak rates and frequencies for UST systems with field-constructed tanks greater than 50,000 gallons than for factory-built tanks.

Based on limited data about leaks from field-constructed tanks, EPA is proposing two release detection requirements depending on tank size. UST systems with field-constructed tanks up to 50,000 gallons will be required to meet requirements in § 280.41(a). UST systems with field-constructed tanks greater than 50,000 gallons will be required either to meet requirements in § 280.41(a) or use an alternative release detection method described below. EPA estimates a subset of larger size tanks will be able to use automatic tank gauging systems set to achieve leak rates in 280.43(d). NWGLDE's list identifies numerous automatic tank gauging systems capable of detecting leaks on tanks up to 100,000 gallons.[49]

Owners and operators of UST systems with field-constructed tanks greater than 50,000 gallons will be allowed to choose several alternative release detection methods. They must either perform annual bulk underground tank tightness testing that can detect a 0.5 gallon per hour leak rate or use an automatic tank gauging system that can detect up to a two gallon per hour leak rate. Depending on the automatic tank gauging system's leak rate, a bulk underground tank tightness test at a rate of 0.2 gallon per hour will be required at least every two or three years. This proposed automatic tank gauging requirement is different from the 1988 release detection requirement for factory-built tanks. These proposed leak

[47] United Facilities Criteria (UFC) 3–460–01, ''Petroleum Fuel Facilities,'' prescribes basic specifications and guidance for designing fueling systems on military installations. Unless otherwise noted, the handbook uses nationally recognized association and institute standards in accordance with the appropriate service policy. For the purposes of this preamble, a ''field-constructed tank'' is analogous to a ''cut and cover'' tank.

[48] National Work Group on Leak Detection Evaluation's (NWGLDE) List of Leak Detection Evaluations for Storage Tank Systems: *http://www.nwglde.org/.*

[49] National Work Group on Leak Detection Evaluation's (NWGLDE) List of Leak Detection Evaluations for Storage Tank Systems: *http://www.nwglde.org/.*

rates and time frames for release detection testing are appropriate because they will detect releases within a reasonable time frame given the large tank sizes and time needed to perform testing on these tanks.

In addition, implementing agencies may approve another method of release detection for UST systems with field-constructed tanks if the owner and operator can demonstrate the method can detect a release as effectively as any of the methods listed above. The implementing agency must consider the size of release the method can detect as well as frequency and reliability of detection when comparing methods. Owners and operators must comply with any conditions imposed by the implementing agency on the method's use.

EPA acknowledges the complexities in performing release detection on tanks significantly larger than 50,000 gallons. Perhaps the most critical aspect is allowing sufficient time for a tank to reach a state of equilibrium. As tank size increases, the time for a tank to reach an equilibrium state increases significantly. Based on discussions with release detection vendors, many larger tanks require multiple inactive days to yield an accurate test result.

Most UST systems with field-constructed tanks are owned by DoD. Taking these tanks out of service for multiple days to meet the 1988 release detection requirement would impede DoD's mission, be impractical to sustain, and result in significant costs.[50] Our proposed alternatives for release detection provide appropriate environmental protection without substantially compromising DoD's mission. DoD can choose to combine an automatic tank gauge, at leak rates achievable by automatic tank gauges on the market for monthly tank monitoring, with precision bulk tank tightness testing. The probabilities of detection and false alarm EPA proposes for bulk tank tightness testing are consistent with the line leak detection requirements in the 1988 UST regulation. DoD can also choose to perform bulk tank tightness testing as a stand-alone method of release detection. Staggering the test frequency will allow DoD to take tanks out of service at different intervals without hindering its mission.

Although current release detection methods can successfully perform tests and detect leaks on pressurized piping at retail service stations, these systems cannot achieve the same level of accuracy on large diameter underground piping of UST systems with field-constructed tanks. EPA is proposing piping of UST systems with field-constructed tanks meet the same requirements proposed for airport hydrant system piping. See section C–2 for proposed release detection requirements for airport hydrant system piping.

Release Prevention

In § 280.20, EPA is proposing new or replaced tanks and piping have secondary containment. Secondary containment poses a much smaller risk to the environment by providing an additional measure for containing released regulated substances in the interstitial space between the two walls of the UST system. Secondary containment must be: Able to contain regulated substances released from the UST system until they are detected and removed; able to prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and checked for evidence of a leak at least once every 30 days using interstitial monitoring that meets the requirements of 280.43(g) for tanks. For UST systems with field-constructed tanks, EPA is proposing only new and replaced tanks meet the secondary containment requirement.

EPA discussed with DLA Energy and other vendors the feasibility of installing secondary containment on piping of UST systems with field-constructed tanks. Field-constructed tank system pipes range from four to 20 inches in diameter, with lengths normally greater than 30,000 feet.[51] Due to complex configurations and varying pipe lengths, we believe installing secondary containment on piping of UST systems with field-constructed tanks may be impractical. It would be difficult to design a liquid tight barrier that could accommodate varying diameters of underground piping. Because leaks occur at fittings and valves, installing fittings and valves to join pipes with various diameters along the piping run increases the likelihood of a release. Because field-constructed tank system pipe lengths are normally significantly greater than lengths of piping at a typical retail gasoline station, it would be very difficult to install a system with enough sloping that could adequately monitor the lowest point of a piping run. Finally, condensation can accumulate in the interstice between the inner and outer steel pipe walls, promoting corrosion of both pipe walls in the interstitial space and increasing the likelihood of a release to the environment.

EPA acknowledges there are engineering and design challenges (that is, varying pipe diameter and length, along with water accumulation in the interstitial space) when secondarily containing piping of UST systems with field-constructed tanks.[52] Therefore, EPA is proposing not to require secondary containment for piping of UST systems with field-constructed tanks. However, EPA is proposing new and replaced field-constructed tanks meet secondary containment requirements. See section A–2 for more information about the proposed secondary containment requirements for tanks.

As with all other regulated UST systems, EPA is proposing UST systems with field-constructed tanks meet corrosion protection requirements. Because interim prohibition has been in effect since May 1985, UST systems with field-constructed tanks generally are already equipped with corrosion protection (that is, constructed of: Non-corrodible material; coated and cathodically protected steel; fiberglass reinforced plastic; or steel tank clad with fiberglass reinforced plastic). Field-constructed UST systems made of concrete would meet the corrosion protection requirement because they are constructed of a non-corrodible material.

As with airport hydrant systems, EPA is proposing not to allow adding an internal lining as a means of corrosion protection for UST systems with field-constructed tanks that are not already upgraded. See section C–2 for an explanation of why EPA is not allowing these USTs to be upgraded with internal lining.

As with all other regulated UST systems, EPA is proposing UST systems with field-constructed tanks meet spill and overfill requirements to prevent releases to the environment. After discussion with industry and DoD's DLA Energy, EPA is taking the position that existing UST systems with field-constructed tanks are already equipped with spill and overfill prevention devices that will adequately prevent spills and overfills.

[50] See section F of this preamble and Regulatory Impact Analysis (RIA) for the proposed rule, available as a separate document in the docket, for information on the cost differences between meeting conventional release detection requirements and the proposed alternative requirements for airport hydrant systems and UST systems with field-constructed tanks.

[51] DOD's DLA Energy, ''Response to EPA—Release Detection Point Paper,'' dated 03/10.

[52] DOD's DLA Energy, ''Response to EPA—Release Detection Point Paper,'' dated 03/10.

UST systems with field-constructed tanks installed on or before the effective date of the final UST regulation that do not meet the upgrade requirements within three years after the effective date of the rule must be permanently closed according to § 280.70. EPA is requiring permanent closure to prevent releases to the environment from UST systems with field-constructed tanks that have not been upgraded.

Notification

To make implementing agencies aware that UST systems with field-constructed tanks exist, EPA is proposing owners of these systems submit a one-time notification to the implementing agency. Owners must notify within 30 days of the effective date of the final regulation. This will allow implementing agencies to include UST systems with field-constructed tanks in their inventories.

Financial Responsibility

Because EPA is proposing to eliminate the deferral for UST systems with field-constructed tanks, they will no longer be exempt from financial responsibility requirements in subpart H. Owners and operators will be required to comply by the effective date of the final UST regulation. The 1988 UST financial responsibility regulation exempts state and federal entities. Therefore, federal and state owners and operators of UST systems with field-constructed tanks will not have to meet the financial responsibility requirement. Nearly all UST systems with field-constructed tanks are owned by the federal government.

Deferred Components

As with airport hydrant systems, EPA is proposing to continue deferring the aboveground tanks associated with UST systems with field-constructed tanks from subparts B, C, D, E, and G. See section C–2 for an explanation of why EPA proposes to continue deferring these aboveground components.

What issues related to this change does EPA request comment or additional data on?

- Are the release detection options and time frames appropriate and sufficient?
- Are there other release detection options EPA should consider?
- Are you aware of any releases from UST systems with field-constructed tanks? If so, what were the sources, causes, and impacts to the environment?
- Is the proposed time frame for implementing the requirements for UST systems with field-constructed tanks reasonable? If not, please explain why.
- Should EPA consider alternative options for closing very large UST systems in place? For example, should EPA consider requiring removal or allowing closure in place without filling the UST?
- Should EPA consider revising the date in 280.73 for previously deferred UST systems? Revision of this date would mean that these UST systems closed prior to the effective date of the final rule would not have to meet Subpart G unless the implementing agency directs otherwise based on a current or potential threat to human health and the environment. How many of these UST systems have been closed since December 22, 1988?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

4. Wastewater Treatment Tank Systems

What is EPA proposing?

EPA is proposing to regulate wastewater treatment tank systems that are not part of a wastewater treatment facility regulated under § 402 or 307(b) of the CWA.

This means wastewater treatment tank systems that are currently deferred in § 280.10(c)(1) will no longer be deferred from the requirements of 40 CFR part 280 subparts B (*UST Systems: Design, Construction, Installation and Notification*), C (*General Operating Requirements*), D (*Release Detection*), E (*Release Reporting, Investigation, and Confirmation*), G *(Out-of-Service UST Systems and Closure*), and H (*Financial Responsibility*). These wastewater treatment tanks that are currently deferred in § 280.10(c)(1) will be referred to as ''wastewater treatment tanks'' in the discussion below.

Wastewater treatment tank systems installed on or before the effective date of the final UST regulation must begin meeting the requirements of subparts B (except § 280.22), C, and D within three years of the effective date of the final UST regulation and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. Wastewater treatment tank systems installed after the effective date of the final UST regulation must meet these requirements at the time of installation.

Release Detection

EPA is proposing wastewater treatment tank systems no longer be deferred from release detection. This means wastewater treatment tank systems must meet the release detection requirements in 40 CFR part 280, subpart D.

Release Prevention

EPA is proposing wastewater treatment tank systems meet corrosion protection, spill, and overfill requirements. For corrosion protection, EPA is proposing wastewater treatment tank systems meet one of these:

- The new tank and piping standards described in § 280.20; or
- Wastewater treatment tank systems installed on or before the effective date of the final UST regulation can be constructed of metal and cathodically protected according to a code of practice developed by a nationally recognized association or independent testing laboratory and meet the following:
  - Field installed cathodic protection systems must be: Designed by a corrosion expert; designed to allow for the determination of current operating status for impressed current systems; and operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; and
  - Tanks greater than 10 years old without cathodic protection must be assessed to ensure they are structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method the implementing agency determines adequately assesses the tank for structural soundness and corrosion holes.

EPA is proposing wastewater treatment tank systems installed on or before the effective date of the final UST regulation that are not upgraded according to § 280.21 within three years of the effective date of the final UST regulation be permanently closed according to § 280.70. EPA is proposing internal lining not be allowed for meeting the corrosion protection upgrade requirement.

Notification

EPA is proposing that, no later than 30 days after the effective date of the final UST regulation, wastewater treatment tank system owners notify appropriate implementing agencies that their systems exist.

Financial Responsibility

EPA is proposing wastewater treatment tank systems no longer be deferred. This means wastewater treatment tank systems that have not been permanently closed will be subject to financial responsibility requirements in subpart H.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing to regulate wastewater treatment tank systems (including oil-water separators) containing regulated substances in 40 CFR part 280 if they are not part of a wastewater treatment facility regulated under § 402 or 307(b) of the CWA. In the 1988 UST regulation, EPA deferred these systems because we were uncertain about how many of these UST systems exist and the appropriateness of some release detection systems for these systems. EPA still is uncertain about how many wastewater treatment tank systems exist. Removing the deferral will allow us to determine how many are subject to 40 CFR part 280;. In addition, release detection methods are available to detect releases from these systems. EPA is proposing to regulate these types of UST systems to protect human health and the environment from discharges of regulated substances contained in these systems. When wastewater treatment tank systems are not part of a wastewater treatment facility regulated under § 402 or 307(b) of the CWA, they must meet all requirements in 40 CFR part 280, including requirements for design, construction, installation, and notification; general operating; release detection; and closure.

To help determine the universe of wastewater treatment tank systems we are proposing to regulate, EPA queried several field experts. They were not aware of any wastewater treatment tank systems that are part of a wastewater treatment facility not regulated under § 402 or 307(b) of the CWA. Based on the experts' information, all wastewater treatment tanks, including those at most publicly-owned treatment works and many private treatment facilities, are all part of a wastewater treatment facility regulated by either § 402 or § 307(b) of the CWA and, therefore, are excluded from 40 CFR part 280. As a result, it appears there are no wastewater treatment tank systems currently deferred. However, in the event such tanks exist, they present the same risks as other UST systems currently regulated and need to meet the requirements in 40 CFR part 280 in order to protect human health and the environment.

EPA is proposing that wastewater treatment tank systems installed on or before the effective date of the final UST regulation begin meeting the requirements in 40 CFR 280 subparts B (except § 280.22), C, and D within three years of the effective date of the final UST regulation and § 280.22 of subpart B along with subparts E, G, and H on the effective date of the final UST regulation. This includes requirements for design, construction, and installation (including spill, overfill, and corrosion protection); release detection; notification; operation and maintenance; recordkeeping; and closure. In the 1988 UST regulation, deferred wastewater treatment tank systems were required to meet the interim prohibition requirements of § 280.11 (that is, corrosion protected, made of non-corrodible materials, or otherwise designed and constructed to prevent releases during the operating life of the facility due to corrosion or structural failure). Therefore, wastewater treatment tank systems are already equipped with corrosion protection. Wastewater treatment tank systems installed after the effective date of the final UST regulation must meet all 40 CFR part 280 requirements at installation. Three years allows owners and operators enough time to implement the requirements of subparts B (except § 280.22), C, and D. EPA also is taking the position that owners and operators can implement the requirements of § 280.22 of subpart B along with subparts E, G, and H beginning on the effective date of the final UST regulation because upgrades or special equipment are not needed to meet the requirements in these subparts.

As with airport hydrant systems and UST systems with field-constructed tanks, EPA is proposing not to allow adding an internal lining as a means of corrosion protection for wastewater treatment tank systems that are not already upgraded. See section C–2 for an explanation of why EPA is not allowing these USTs to be upgraded with internal lining.

Wastewater treatment tank systems installed on or before the effective date of the final UST regulation that do not meet the upgrade requirements within three years after the effective date of the rule must be permanently closed according to § 280.70. EPA is requiring permanent closure to prevent releases to the environment from wastewater treatment tank systems that have not been upgraded.

Notification

EPA is proposing owners submit a one-time notification to implementing agencies for wastewater treatment tank systems not regulated by the CWA. Owners must notify within 30 days of the effective date of the final regulation. EPA is proposing this to ensure implementing agencies are aware these systems exist.

Financial Responsibility

Because wastewater treatment tank systems will no longer be deferred, those systems not permanently closed will need to meet financial responsibility requirements as described in 40 CFR part 280, subpart H. Federal- and state-owned facilities are exempt from this requirement. Therefore, federal and state owners and operators of wastewater treatment tank systems will not have to meet this requirement.

What issues related to this change does EPA request comment or additional data on?

- EPA is taking the position that there are no wastewater treatment tank systems affected by this proposal. Are you aware of systems that would be subject to this proposed change? If yes, please provide information about the number and location of wastewater treatment tank systems that would be regulated. For instance are there units associated with natural gas drilling that are not regulated by 402 or 307(b)?
- If there are wastewater tank systems, is it most appropriate to regulate, exempt, or continue to defer these systems? Please explain why.
- Should EPA consider revising the date in 280.73 for previously deferred UST systems? Revision of this date would mean that these UST systems closed prior to the effective date of the final rule would not have to meet Subpart G unless the implementing agency directs otherwise based on a current or potential threat to human health and the environment. How many of these UST systems have been closed since December 22, 1988?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

5. Maintain Deferral for USTs Containing Radioactive Material and Emergency Generator UST Systems at Nuclear Power Generation Facilities Regulated by the Nuclear Regulatory Commission

EPA is not proposing changes to the 1988 UST regulation deferral in § 280.10(c)(2) and (3) for USTs containing radioactive material and for emergency generator UST systems at nuclear power generation facilities regulated by the Nuclear Regulatory Commission (NRC). Currently, these types of UST systems are deferred from most UST requirements but are subject to requirements for interim prohibition, release response and corrective action, and where applicable, lender liability (40 CFR part 280, subparts A, F, and I,

respectively). EPA has decided to keep the deferral in order to retain EPA's requirements for cleaning up releases from these USTs.

EPA compared Department of Energy (DOE) Orders [53] and NRC requirements to the 1988 UST regulation. This assessment revealed DOE and NRC requirements are comparable to EPA requirements for new and existing USTs regarding spill and overfill control (§ 280.30); operation and maintenance of corrosion protection (§ 280.31); compatibility (§ 280.32); and release detection (40 CFR part 280, subpart D). However, there is no independent regulatory authority for DOE and NRC to remediate releases. With that in mind, EPA is taking the position that it is appropriate to maintain the deferral for these USTs as it currently exists in order for EPA to continue requiring release response and corrective action.

D. Other Changes

1. Changes To Overfill Prevention Equipment Requirements

What is EPA proposing?

In § 280.20, EPA is proposing to eliminate flow restrictors (also called ball float valves) in vent lines as an overfill prevention option either when an UST system is installed or when an UST system's overfill prevention equipment is replaced.

Owners and operators using a vent line flow restrictor before the final UST regulation becomes effective may continue using a flow restrictor to meet the overfill prevention requirements, as long as it restricts the flow of regulated substances into the UST when the device activates.

Owners and operators may continue to use flow restrictors not in vent lines (such as flow restrictors in fill pipes), automatic shutoff devices, and high level alarms as overfill prevention for all UST systems.

Why is EPA proposing this change? What background information is available about this change?

Spills and overfills are a common cause of UST system releases (see sections B–2 and B–3 for additional discussion). Through extensive stakeholder outreach, EPA identified vent line flow restrictors as a significant concern for operability and safety. To reduce the frequency of UST releases due to operability and to address system safety and personnel safety concerns, EPA is proposing to eliminate vent line flow restrictors for new installations and replacements.

- *Operability*—For a vent line flow restrictor to operate properly, the device must restrict the flow of regulated substance into the UST when the flow restrictor engages. If the tank top is not liquid or vapor tight, flow into the UST is not restricted because vapors continue to escape through these non-tight areas. If vapors continue to escape the UST, there is no pressure buildup in the vapor area of the tank, resulting in no reduced flow rate into the UST. Examples where non-tight tank tops may result in ineffective flow restrictors include: Loose tank bungs or other tank top components; tanks with coaxial stage I vapor recovery installed; and tanks with both tank top and remote fill areas.
- *System safety*—Vent line flow restrictors can create safety concerns when they activate. USTs can become over pressurized and damaged during a pressurized delivery. The 2005 version of the Petroleum Equipment Institute's installation standard, RP100, recommends against using vent restriction devices because the vent line flow restrictor pressurizes the UST, creating a hazardous condition when the device operates as designed.
- *Personnel safety*—Delivery personnel can be sprayed with regulated substances when they disconnect the delivery hose from the fill pipe and the vent line flow restrictor activates.

What issues related to this change does EPA request comment or additional data on?

- EPA considered eliminating or phasing out vent line flow restrictors for currently installed UST systems, but finds the cost burden for owners and operators could be high. Please provide input and information in support of or against eliminating or phasing out vent line flow restrictors.

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

2. Internal Linings That Fail the Periodic Lining Inspection and Cannot Be Repaired

What is EPA proposing?

In § 280.21, EPA is proposing owners and operators permanently close an UST that uses internal lining as the sole method of corrosion protection when both of these conditions exist:

- A lining inspection determines the internal lining is no longer performing according to original design specifications; and
- The internal lining cannot be repaired according to a code of practice developed by a nationally recognized association or independent testing laboratory.

For tanks with both internal lining and cathodic protection, EPA is proposing to allow owners and operators continue operating an UST if it fails the lining inspection and cannot be repaired if both of these criteria are met:

- The cathodic protection is operated and maintained according to § 280.31; and
- The tank was assessed and found to be structurally sound and free of corrosion holes when the cathodic protection was added to the tank.

Why is EPA proposing this change? What background information is available about this change?

About 3 percent of tanks today rely on internal lining as the sole method of corrosion protection to meet the 1988 UST regulation.[54] Tanks that are internally lined to meet the 1988 UST regulation corrosion protection requirement at § 280.21 are typically older, bare steel tanks installed before 1986. The 1988 UST regulation preamble says that internal lining, when used as the sole method for corrosion protection, is not regarded as a permanent upgrade. However, it is adequate if the lining continues to meet original design specifications. If the internal lining no longer meets original design specifications and cannot be repaired according to industry codes, then the lined tank is subject to unprotected tank requirements and must be replaced after 1998. However, the language from the 1988 preamble was not included in § 280.21(b)(1).

EPA is proposing to revise the internal lining requirements to match EPA's intent of replacing internally lined tanks that fail a lining inspection and cannot be repaired according to a code of practice. EPA is proposing that a lined tank must be permanently closed if, when inspected, it cannot be repaired according to a code of practice.

Owners and operators may continue using internal lining to meet the corrosion protection requirement, as long as:

[53] DOE Orders establish management objectives, identify performance requirements and assign responsibilities consistent with policy and regulations. See: *https://www.directives.doe.gov/directives/types-of-directives.*

[54] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

• The internal lining is periodically inspected according to § 280.21(b)(1)(ii); and

• The internal lining passes the inspection or is repaired so it meets original design specifications according to a code of practice developed by a nationally recognized association or independent testing laboratory.

Consistent with current EPA policy,[55] tanks using the combination of cathodic protection and internal lining for corrosion protection are not required to be closed if the internal lining fails and cannot be repaired as long as:

• The cathodic protection is operated and maintained according to § 280.31; and

• The tank was assessed and found to be structurally sound and free of corrosion holes when the cathodic protection was added to the tank.

What issues related to this change does EPA request comment or additional data on?

• Should EPA consider requiring lined tanks be closed when they fail a lining inspection independent of whether the lining can be repaired? If yes, please provide information to support your answer.

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

3. Notification Requirements

What is EPA proposing?

EPA is proposing these notification requirement changes in § 280.22:

• Notify implementing agencies within 30 days of assuming ownership of an UST system. A new owner is required to submit a form which provides the new owner's name, mailing address, physical location of USTs, and name of previous owner;

• Require owners who bring new UST systems into service notify implementing agencies of USTs, rather than state or local agencies designated by EPA;

• Merge the paragraph about minimum information with the paragraph explaining what forms to use for notification and delete the minimum information paragraph;

• Require owners of deferred UST systems EPA is proposing to require a one-time notification to implementing agencies within 30 days of the effective date of the final UST regulation.

EPA is proposing changes to the ''Notification For Underground Storage Tanks'' form in Appendix I.

EPA is proposing changes to the form as a result of today's proposal, and to change ''State'' to ''Implementing Agency'' throughout the form.

EPA is proposing a new form titled ''Notification of Ownership Change for Underground Storage Tanks'' under Appendix II.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing the new ownership change notification to more effectively administer the UST program. EPA required a one-time notification of regulated USTs by May 8, 1986,[56] and owners who purchased newly installed UST systems completed and submitted notification forms to implementing agencies. However, EPA did not require people notify implementing agencies when acquiring a regulated UST, such as when purchasing an existing service station.

Without a requirement to notify when persons assume ownership of UST systems, implementing agencies have difficulty administering the UST program. Persons can assume ownership through purchase, inheritance, acquisition of property, or other means. EPA estimates on average 10 percent of retail UST facilities change ownership in a given year.[57] Any communication or outreach is impaired if implementing agencies do not know the correct owners of a large proportion of regulated USTs. When final, this change will ensure implementing agencies know the current ownership of regulated UST systems.

At least 48 of 56 states and territories realized this need and instituted some form of ownership change notification. EPA is following the example of these states and will require an ownership change notification to more effectively administer the UST program.

EPA is proposing to include a form in Appendix II titled ''Notification of Ownership Change for Underground Storage Tanks.'' The new form specifies the information persons need to submit to the implementing agency after they become owners of underground storage tanks. EPA is proposing these owners provide their name, address, phone number, name of the facility, location of USTs, as well as the name, address, and phone number of the previous owner.

EPA is also proposing owners who bring UST systems into service notify implementing agencies, rather than state and local agencies identified by EPA. This change is needed for two reasons. First, an unintended result of the existing requirement is owners in Indian country submitted notification forms to state or local agencies, not to EPA, even though EPA is the implementing agency in Indian country. When final, this change will greatly assist EPA in implementing the UST program in these areas. Second, many of the agency names and addresses EPA identified in 1988 are no longer accurate. When final, this change will provide owners with clarity about where to send notification forms and better accommodate changes of implementing agencies.

EPA is proposing to merge the paragraphs discussing the minimum information owners and operators need to submit and the form to be submitted to implementing agencies. This will reduce redundancy and ease understanding of this requirement. As a result, a separate paragraph explaining what minimum information to submit for notification will be unnecessary.

EPA is proposing owners of previously deferred UST systems notify implementing agencies within 30 days of the effective date of the final UST regulation. EPA is proposing this one-time notification because owners of previously deferred UST systems brought into service after May 8, 1986 were not required to notify implementing agencies. Because EPA is proposing to regulate previously deferred UST systems and to ensure they meet requirements of the final UST regulation, it is imperative implementing agencies receive notice about these UST systems.

Due to EPA's proposed changes to the UST regulation, we are proposing changes to the notification form under Appendix I. This will make the form request appropriate information according to today's proposal. For instance, the release detection section of the 1988 UST regulation form did not include statistical inventory reconciliation or bulk tightness testing. The proposed form includes these methods.

What issues related to this change does EPA request comment or additional data on?

• Is a one-time notification for all UST owners also necessary to effectively administer the UST program in jurisdictions (eight states and

[55] EPA UST Technical Compendium Question and Answer #14: *http://epa.gov/oust/compend/nus.htm.*

[56] Solid Waste Disposal Act § 9002(a)(1).

[57] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

territories and Indian country) where implementing agencies do not currently require ownership change notification? EPA is posing this question because of the high rate of UST ownership changes and resulting likelihood implementing agencies do not know who owns numerous UST systems.

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

4. Alternative Fuels And Compatibility

What is EPA proposing?

EPA is proposing changes to two definitions in § 280.12 of the 1988 UST regulation.

• *Regulated substance*—delete "* * * derived from crude oil though[58] [*sic*] processes of separation, conversion, upgrading, and finishing * * *"

• *Motor fuel*—include explanatory language that a petroleum or petroleum-based substance is typically used to operate a motor engine and provide example products (motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any blend containing one or more of these substances, such as motor gasoline blended with alcohol) meeting the definition.

In addition, EPA is proposing changes to the compatibility requirement in § 280.32 of the 1988 UST regulation. These changes explain how owners and operators storing certain regulated substances must demonstrate that their UST systems are compatible with substances stored. Specifically, EPA is proposing:

• Owners and operators storing any regulated substance blended with greater than 10 percent ethanol or greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency, must use one or more of the following methods to demonstrate UST system compatibility with these regulated substances:

○ Certification or listing of UST system components by a nationally recognized, independent testing laboratory for use with the fuel stored;

○ Equipment or component manufacturer approval. The manufacturer's approval must be in writing; indicate an affirmative statement of compatibility; specify the range of ethanol or biodiesel blends the component is compatible with; and be from the equipment or component manufacturer; or

○ Another method determined by the implementing agency to be no less protective of human health and the environment than the previously listed methods.

• Owners and operators must maintain the following records (according to § 280.34) for the life of the equipment or component:

○ Documentation of compliance with the above section as applicable; and

○ Records of all equipment or components installed or replaced after the effective date of the final UST regulation. At a minimum, each record must include the date of installation or replacement, manufacturer, and model.

EPA is also proposing to delete these codes of practice.

• American Petroleum Institute Publication 1626, "Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations"

• American Petroleum Institute Publication 1627, "Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations"

Why is EPA proposing this change? What background information is available about this change?

Regulated Substance and Motor Fuel Definitions

EPA is proposing a change in the regulated substance definition to clarify that petroleum does not need to be derived from crude oil in order to be regulated when stored in USTs. The preamble to the supplement to the proposal for the original UST regulation indicates that petroleum products can be derived from other materials, such as biomass, plant material, organic waste, coal, and shale oil.[59] Petroleum is comprised of a complex blend of hydrocarbons regardless of its source material; therefore, all petroleum poses risks to human health and the environment.

Many people interpreted the 1988 UST regulation definition of regulated substance as applying to petroleum USTs only if the petroleum was derived from crude oil. Over time, this misinterpretation may become more problematic as the amount of petroleum derived from non-crude oil based products, such as natural gasoline, increases as a result of requirements in the Energy Independence and Security Act of 2007. Today's regulated substance clarification will eliminate uncertainty about the regulatory status of tanks storing petroleum products derived from sources other than crude oil.

EPA is proposing a change in the motor fuel definition to better accommodate new motor fuels that may be marketed and stored in the future. The 1988 UST regulation definition listed motor fuel products, leading to confusion as to whether new fuels, such as petroleum blended with ethanol or biodiesel, are motor fuels. Today's proposal clarifies the motor fuel definition to explain that it is any fuel typically used to operate a motor engine.

Compatibility

EPA understands that the chemical and physical properties of ethanol and biodiesel can be more degrading to certain UST system materials than petroleum alone. As the use of ethanol- and biodiesel-blended fuels increases, EPA is concerned that not all UST system components are compatible with these fuel blends.

Gasoline containing 10 percent or less ethanol (known as E10) has been used in parts of the United States for many years, and UST equipment manufacturers accommodated the E10 market by producing compatible equipment. According to the Renewable Fuels Association, ethanol is blended into over 90 percent of all gasoline sold in the country,[60] predominantly as E10. Recently, there has been a movement toward higher blends of ethanol, due in part to federal and state laws encouraging the increased use of biofuels. While most UST system equipment and components are compatible with E10, blends greater than 10 percent ethanol do not have a long history of storage and may not be compatible with certain materials used in UST systems. According to a 2011 report published by U.S. Department of Energy's Oak Ridge National Laboratory,[61] some elastomeric materials are particularly affected by intermediate ethanol blends and certain sealants may not be suitable for any ethanol-blended fuels. A 2007 report from Underwriters Laboratories (UL)[62]

[58] This is an error in 40 CFR 280; "though" should be "through."

[59] "40 CFR Parts 280 and 281 USTs; Supplement to Proposed Rule," 52 Federal Register 246 (23 December 1987), pg. 48640.

[60] Renewable Fuels Association, "Building Bridges to a More Sustainable Future: 2011 Ethanol Industry Outlook." *http://www.ethanolrfa.org/page/-/2011%20RFA%20Ethanol%20Industry%20Outlook.pdf?nocdn=1.*

[61] Oak Ridge National Laboratory, "Intermediate Ethanol Blends Infrastructure Materials Compatibility Study: Elastomers, Metals, and Sealants" (March 2011).

[62] Underwriters Laboratories, Inc., "Underwriters Laboratories Research Program on Material Compatibility and Test Protocols for E85 Dispensing Equipment" (December 2007). Available in the UST Docket under Docket ID No. EPA–HQ–UST–2010–0651.

evaluated the effect of 85 percent ethanol and 25 percent ethanol blends on dispenser components. Results indicated some materials used in the manufacture of seals were degraded more when exposed to the 25 percent ethanol test fluid than when exposed to the 85 percent ethanol test fluid. Other literature suggests ethanol fuel blends can be more aggressive toward certain materials than independent fuel constituents, with maximum polymer swelling observed at approximately 15 percent ethanol by volume.[63] Therefore, EPA is clarifying the compatibility requirements for owners and operators who choose to store regulated substances containing greater than 10 percent ethanol.

EPA is also clarifying the compatibility requirements for owners and operators who choose to store regulated substances containing greater than 20 percent biodiesel. Although the total use of biodiesel is significantly less than that of ethanol, it has become increasingly available across the United States and may also be incompatible with certain materials used in UST systems. Pure biodiesel (B100), for example, has known compatibility issues with certain materials. According to the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) *Biodiesel Handling and Use Guide, Fourth Edition,*[64] ''B100 will degrade, soften, or seep through some hoses, gaskets, seals, elastomers, glues, and plastics with prolonged exposure * * * Nitrile rubber compounds, polypropylene, polyvinyl, and Tygon® materials are particularly vulnerable to B100.''

In contrast, the properties of very low blends of biodiesel (B5 or less) are so similar to those of petroleum diesel that ASTM International (ASTM) considers conventional diesel that contains up to 5 percent biodiesel to meet its ''Standard Specification for Diesel Fuel Oils''[65]. For biodiesel blends between 5 and 100 percent, there is very little compatibility information; however, NREL's handling and use guide concludes that biodiesel blends of B20 or less have less of an effect on materials and very low blends of biodiesel (for example, B5 and B2) '' * * * have no noticeable effect on materials compatibility.''[66] In addition, fleet service sites have stored B20 in USTs for years, and EPA is not aware of compatibility-related releases associated with those USTs storing B20. Therefore, EPA is proposing to require tank owners and operators who store greater than 20 percent biodiesel in their UST systems demonstrate compatibility of UST equipment by one of the methods proposed in § 280.32.

To avoid risk of increased releases due to incompatibility of ethanol or biodiesel blends with UST system components, EPA is proposing several options for owners and operators to demonstrate that their UST systems are compatible with regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel. These options provide owners and operators with flexibility in demonstrating compatibility, yet still protect human health and the environment. In the past, tank owners typically demonstrated compatibility by using equipment certified or listed by a nationally recognized, independent testing laboratory, such as Underwriters Laboratories (UL). Many UST components in the ground today were manufactured before regulated substances containing ethanol or biodiesel existed and are not approved by nationally recognized, independent testing laboratories for use with these fuel blends. Currently, certain tanks and piping have been tested and are listed by UL for use with higher-level ethanol blends. Many other components of the UST system, such as leak detection devices, sealants, and containment sumps, may not be listed by UL or another nationally recognized, independent testing laboratory for use with these blends.

In addition, EPA is not aware of any nationally recognized, independent testing laboratory that has performed testing on UST system components with biodiesel-blended fuels. Absent certification or listing from a nationally recognized, independent testing laboratory, or other verification that components may be used with anything beyond conventional fuels, the suitability of these components for use with ethanol or biodiesel blends comes into question. As a result, EPA is providing options for demonstrating compatibility to reduce the risk of releases due to material incompatibility. Owners and operators choosing to store regulated substances blended with greater than 10 percent ethanol or greater than 20 percent biodiesel must demonstrate compatibility of the UST system before storing those regulated substances.

EPA is proposing owners and operators use one of these two methods for demonstrating compatibility of UST equipment or components with regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel: using equipment or components that are certified or listed by a nationally recognized, independent testing laboratory for use with the fuel stored; or using equipment or components approved by the manufacturer to be compatible with the fuel stored. In addition, implementing agencies will have the flexibility to evaluate and allow other methods, if they are no less protective of human health and the environment than those EPA is proposing today.

For those components tested and approved by a nationally recognized, independent testing laboratory, owners and operators will be able to demonstrate compatibility solely by keeping records of these components. In this instance, the testing laboratory's listing, labeling, or approval demonstrates the equipment or component's suitability to be used with the regulated substance stored, which means owners and operators will be able to demonstrate compatibility by retaining equipment or component records.

Owners and operators will also be able to demonstrate compatibility by obtaining manufacturer's approval of components' compatibility with the regulated substance to be stored. The manufacturer's approval must be in writing and include an affirmative statement that the component is compatible with the fuel blend stored. To add clarity for tank owners and operators, the manufacturer's approval must also specify the range of fuel blends for which the component is compatible. Finally, the manufacturer's approval must be issued from the equipment or component manufacturer, not another entity (such as the installer or distributor). A manufacturer's approval will enable owners and operators to demonstrate compatibility for components not approved for use by a nationally recognized, independent testing laboratory. It will also provide confidence for implementing agencies that the component is compatible with the fuel stored.

EPA is proposing an additional option which would allow implementing

[63] Westbrook, P.A., ''Compatibility and Permeability of Oxygenated Fuels to Materials in Underground Storage and Dispensing Equipment'' (January 1999). Available in the UST Docket under Docket ID No. EPA–HQ–UST–2010–0651.

[64] National Renewable Energy Laboratory, ''Biodiesel Handling and Use Guide, Fourth Edition.'' (2009). Available in the UST Docket under Docket ID No. EPA–HQ–UST–2010–0651.

[65] ASTM Standard D975, 2010c ''Standard Specification for Diesel Fuel Oils,'' ASTM International, West Conshohocken, PA, 2010, DOI: 10.1520/D0975–10C, *http://www.astm.org.*

[66] National Renewable Energy Laboratory, ''Biodiesel Handling and Use Guide, Fourth Edition.'' (2009). Available in the UST Docket under Docket ID No. EPA–HQ–UST–2010–0651.

agencies to approve other methods for demonstrating compatibility with regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel. Implementing agencies will be able to approve methods they consider no less protective of human health and the environment in addition to the manufacturer's approval or the listing, labeling, or approval by a nationally recognized, independent testing laboratory. This will provide owners and operators with additional flexibility when new methods to determine UST system component compatibility are developed.

Although these methods for demonstrating compatibility will apply to UST systems storing regulated substances containing greater than 10 percent ethanol and greater than 20 percent biodiesel, EPA is proposing to extend the methods to other regulated substances identified by implementing agencies. This will provide implementing agencies with flexibility when new regulated substances (for example, biobutanol) enter the fuel market and allow implementing agencies to apply these methods for determining UST system compatibility to other regulated substances.

EPA is proposing owners and operators maintain records for the life of UST systems, if the UST system stores regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel or another regulated substance identified by implementing agencies. Owners and operators will be required to retain equipment or component records in order to demonstrate their systems are compatible with these regulated substances. Without records of the equipment or components, owners and operators will not be allowed to store regulated substances containing greater than 10 percent ethanol or greater than 20 percent biodiesel in their UST systems.

To demonstrate compatibility with regulated substances stored in UST systems, owners and operators of new and replaced equipment or components must retain records for the life of the equipment or component. This will ensure new and replaced equipment and components are compatible with the regulated substances stored. As equipment or components are replaced, records will be available for all UST system equipment or components, making it easier for owners and operators to demonstrate compatibility with new regulated substances.

Owners and operators must demonstrate compatibility for the following UST system equipment or components: Tank or internal tank lining; piping; line leak detector; flexible connectors; drop tube; spill and overfill prevention equipment and components; submersible turbine pump equipment and components; sealants (including pipe dope and thread sealant); fittings; gaskets; bushings; couplings; boots; containment sumps (including submersible turbine sumps and under dispenser containment); release detection floats, sensors, and probes; fill and riser caps; and the product shear valve. These equipment or components are a subset of an UST system, as defined by § 280.12, which, if incompatible, would lead to a liquid release to the environment.

EPA is clarifying that the requirements in this section also apply to both newly installed equipment or components and equipment where one or more components are replaced. For newly installed equipment comprised of multiple individual, smaller components and assembled by the manufacturer, some manufacturers provide a compatibility certification for the equipment as a whole. For example, a manufacturer may certify the entire submersible turbine pump as being compatible. The submersible turbine pump certification would include all components (gaskets, sealants, bushings, *etc.*) of the equipment assembled by the manufacturer. Therefore, an owner may obtain one certification for newly installed manufacturer-assembled equipment, as long as the manufacturer certifies the entire piece of equipment as compatible. However, over the lifetime of a typical UST system, equipment is likely to require maintenance, which may involve replacing components such as gaskets, sealants, and bushings. It is important for tank owners to use compatible replacement components, especially since these components are sometimes constructed of materials that are not compatible with biofuel blends. Therefore, components (such as gaskets, sealants, bushings, *etc.*) replaced after the equipment was originally installed will not be covered by the original manufacturer's approval. Owners and operators will need to obtain manufacturer's certification indicating the replaced component is compatible with the regulated substance stored in the UST system.

These proposed changes will protect human health and the environment from potential additional releases as a result of incompatible UST systems. Also, the changes are not overly burdensome, nor do they require costly retrofits. These changes will give owners and operators flexibility, yet provide EPA with confidence that UST systems will be compatible with new fuel blends when owners and operators use one or more of the proposed methods to determine compatibility. The additional language also provides owners and operators with certainty on what is acceptable in demonstrating UST system compatibility with the substances stored.

EPA is also proposing to delete two codes of practice listed in the 1988 UST regulation. EPA included codes of practice to help owners and operators demonstrate compliance with the compatibility requirement. EPA is now proposing methods for determining compatibility, so referencing codes of practice is unnecessary.

In August 2010, American Petroleum Institute (API) published an updated version of API Recommended Practice 1626. Today's proposal incorporates several methods API recommends owners and operators storing blends of greater than 10 percent ethanol use to demonstrate UST system compatibility. If owners and operators follow API Recommended Practice 1626, Section 7 requirements, for regulated substances blended with ethanol, they will meet today's proposed § 280.32(b) changes.

What issues related to this change does EPA request comment or additional data on?

- How many UST systems currently store petroleum not derived from crude oil (such as natural gasoline)?
- Should EPA consider allowing professional engineers to make compatibility determinations?
- Are there additional methods for effectively demonstrating compatibility? If yes, please provide details.
- Are there other alternatives to demonstrating compatibility (such as using secondarily contained USTs) that tank owners and operators should be allowed to use, that are no less protective of human health and the environment?
- Are the proposed criteria for manufacturer's approval reasonable?
- Should EPA consider tiering methods? For example, if an approval or listing from a nationally recognized, independent third party is available, then the manufacturer approval is not an option for that component?
- Should EPA waive the compatibility requirement for UST systems with secondary containment and interstitial monitoring? Why or why not?
- While this proposal requires owners and operators maintain records to demonstrate compatibility, we are not requiring owners and operators transfer

records to new owners and operators. Should EPA consider requiring records transfer?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

5. Improving Repairs

What is EPA proposing?

EPA is proposing to revise the definition of repair in § 280.12 to:

- Clarify that all UST system components, including piping, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, and release detection equipment are included under the repairs allowed section of the regulation, and
- Remove the link that repairs are only associated with a release from an UST system by adding to the definition suspected release and equipment that has failed to function properly.

For repairs to secondary containment areas of UST systems, overfill prevention equipment, and spill prevention equipment, EPA is proposing to add tests after a repair to the repairs allowed section (§ 280.33). The tests after repair requirements for these areas are the same as those for periodic spill and overfill tests discussed in sections B–2 and B–3. The tests for interstitial areas after a repair and periodic interstitial integrity (in section B–4) are the same, except tanks with continuous interstitial sensors must perform a vacuum, pressure, or liquid test following the repair. These tests must be conducted within 30 days of a repair.

Why is EPA proposing this change? What background information is available about this change?

Clarification of UST system components in the definition of repair—EPA is proposing to add the following UST system components to the definition of repair: Piping; spill prevention equipment; overfill prevention equipment; corrosion protection equipment; and release detection equipment. By adding these UST system components, EPA is making it clear that these specific components are subject to the repairs allowed section of the regulation. This means owners and operators performing repairs on these UST system components must follow the repairs allowed section (§ 280.33). The 1988 UST regulation definition of repair uses the generic term UST system component and provides less detail about what an UST system component is.

Including repairs not associated with a confirmed release or suspected release from the UST system—It is common practice for owners and operators to fix UST components that have not caused a release or suspected release of product from the UST system. However, the repair definition in the 1988 UST regulation does not consider these non-release fixes as repairs. EPA is proposing to modify the repair definition to include the concept of repairing equipment that failed to function properly, delinking a repair with a release from the UST system. This proposed change will ensure repair activities not associated with a release are conducted properly. For example, under the 1988 UST regulation, fixing a cathodic protection system would not be considered a repair because the UST component likely has not yet caused a release of product from the UST system. In addition, EPA is proposing to include a suspected release as part of the definition, so repairs associated with suspected releases are covered under the repair definition.

By removing the link between repair and release, EPA is proposing owners and operators meet the repairs allowed section (§ 280.33) when fixing UST system components that have not caused a release of product from the UST system. This means owners and operators will need to have repairs performed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and test the equipment after the repair is completed.

Tests after repairs—To ensure equipment is operating as intended after a repair, EPA is proposing to require tests within 30 days of repairing spill, overfill, and secondary containment equipment. Except for interstitial integrity tests in USTs with continuous interstitial sensors, the tests after repairs proposal uses periodic tests described in sections B–2, B–3, and B–4. For USTs with continuous interstitial sensors, owners and operators must conduct vacuum, pressure, or liquid tests to ensure the secondary containment area is operating as intended. EPA is proposing to require tests because sensors alone cannot immediately determine whether repairs were completed properly. Vacuum, pressure, and liquid tests will be able to ensure the adequacy of the repair by evaluating the interstitial area. Tests after repairs will only apply to those UST components being repaired and not to all components at the UST site.

EPA is proposing that tests of spill, overfill, and interstitial areas after a repair occur within 30 days of the repair. EPA chose 30 days to be consistent with the time frame for the tightness testing requirement after repairing tanks and piping in § 280.33.

What issues related to this change does EPA request comment or additional data on?

- Should EPA consider changing the time frame for conducting an interstitial, spill, or overfill test from 30 days to before returning the UST system to service?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

6. Phase Out Vapor Monitoring and Groundwater Monitoring as Release Detection Methods

What is EPA proposing?

EPA is proposing to phase out vapor monitoring and groundwater monitoring as methods of release detection for tanks and piping in § 280.43.

Owners and operators of UST systems installed before the effective date of the final UST regulation will have five years to comply with another release detection monitoring method in 40 CFR 280, subpart D.

Why is EPA proposing this change? What background information is available about this change?

Although EPA is proposing new and replaced tanks and piping use interstitial monitoring (see section A–2), UST systems installed before the effective date of the final UST regulation may continue to use internal or interstitial release detection methods listed in subpart D of the 1988 UST regulation. Automatic tank gauging and statistical inventory reconciliation are internal monitoring methods and are characterized by activities within the tank or piping to monitor any discrepancies. Groundwater monitoring and vapor monitoring are external monitoring methods and are characterized by monitoring external areas (specifically groundwater or soil-vapor) that surround an UST system. An interstitial method monitors the space between tank or piping walls and detects a release before it reaches the environment.

EPA is proposing to phase out the two external release detection methods—vapor monitoring and groundwater monitoring—because these methods detect releases well after they enter the environment. In addition, there are inherent problems with installing and confirming proper use of these methods. As methods of release detection, they

are less protective of the environment than others. Regulators inspecting UST systems report common problems they encounter when inspecting UST systems using vapor or groundwater monitoring methods, such as an insufficient number of wells or wells improperly located to sufficiently monitor for potential releases.

Vapor monitoring problems pertain to confirming whether certain site conditions exist. In particular, surrounding soil should be sufficiently porous to readily allow diffusion into the excavation area; the ability to measure vapors should not be affected by groundwater, rainfall, or soil moisture; and background contamination should not interfere with monitoring methods.

A commonly encountered groundwater monitoring problem is that groundwater, at times, can be more than 20 feet from the ground surface, due to seasonal water table variations. According to the 1988 UST regulation, groundwater must never be more than 20 feet from the ground surface and well slotting must be designed to allow entry of regulated substances on the water table into the well under both high and low groundwater conditions. Unfortunately, many wells are not installed appropriately resulting in the depth of groundwater requirement not being met.

Many UST facilities do not have site assessments that confirm whether site conditions support use of vapor monitoring and groundwater monitoring release detection. In instances when site assessments are available, they are often not thorough enough to verify whether regulatory requirements are met. Without site assessments, regulators are unable to determine whether site conditions are met. Reassessing sites to verify if site conditions support use of vapor monitoring or groundwater monitoring is intrusive and costly. Some UST facilities switch between vapor monitoring and groundwater monitoring, depending on seasonal variations. This practice further complicates using these methods, such as whether groundwater rendered the vapor monitoring inoperable or whether the wells are designed for both methods. Even if optimal operating conditions are met in both of these external methods, by the time a release is detected, contamination has already significantly impacted the environment.

In contrast, internal release detection methods have an advantage over external monitoring methods. Internal methods provide an early warning to owners and operators because they indicate unusual operating conditions, such as water in the tank or incremental loss of product. An early warning alerts owners and operators to take action and minimize releases to the environment.

EPA estimates approximately 5 percent of all active UST systems are using vapor monitoring or groundwater monitoring to comply with release monitoring requirements.[67] Because of the time it may take for owners and operators to convert to another method of release detection, five years will allow sufficient time for UST system owners and operators to begin using another method of release detection.

What issues related to this change does EPA request comment or additional data on?

- Is five years for owners and operators using vapor monitoring and groundwater monitoring to switch to another method too short, too long, or an appropriate length?
- Are there circumstances at existing facilities that would warrant a subset of UST systems to use vapor monitoring or groundwater monitoring beyond the proposed period of five years. If so, what are the circumstances?
- Is EPA's assumption of 5 percent accurate for the number of active UST systems using vapor monitoring or groundwater monitoring to comply with release detection requirements?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

7. Interstitial Monitoring Results, Including Interstitial Alarms, Under Subpart E

What is EPA proposing?

EPA is proposing clarifications of UST owners' and operators' responsibilities regarding interstitial monitoring results, including alarms, under 40 CFR part 280, subpart E. Specifically, EPA is proposing these changes:

- Section 280.50(b)—add interstitial spaces of secondarily contained UST systems and provide examples of unusual operating conditions.
- Section 280.50(c)—clarify that an alarm during release detection monitoring is subject to the reporting requirement.
- Section 280.52(a)—require owners and operators of UST systems with secondary containment using interstitial monitoring follow integrity test requirements (proposed in section B–4) to confirm a suspected release, and clarify actions UST owners and operators must take if a test confirms a leak or indicates a release exists.

Why is EPA proposing this change? What background information is available about this change?

The 1988 UST regulation adequately covers interstitial monitoring. Nonetheless, EPA is proposing these changes to reinforce that a leak into an interstitial space of a secondarily contained UST system is also a potential threat to the environment and must be investigated, addressed, and as necessary, reported.

In section A–2, EPA is proposing interstitial monitoring for all new or replaced tanks and piping. As new systems are installed, interstitial monitoring will become more widely used as a method of release detection. With this in mind, EPA wants UST owners and operators to clearly understand how interstitial monitoring results, including interstitial alarms (and alarms associated with other types of release detection monitoring if interstitial monitoring is not used), must be handled.

In the 1988 UST regulation, EPA intended that product or water in the interstice, and alarms signifying the presence of those conditions, are unusual operating conditions and must be investigated appropriately. However, EPA did not indicate how UST owners and operators were to address discrepancies with interstitial spaces. As a result, some UST owners and operators were uncertain about how best to respond to interstitial monitoring results and alarms associated with interstitial monitoring that indicate a release may have occurred. This section provides specific information to alleviate uncertainty for owners and operators.

- Add interstitial spaces of secondarily contained UST systems and provide examples of unusual operating conditions
  - Two unusual operating condition examples—water in the interstitial space (presumably from a breach in the secondary wall) and product in the interstitial space (presumably from a breach in the primary wall)—are important along with other suspected release conditions listed in the 1988 UST regulation. Water or product in the interstitial space indicates there is a problem with the UST system that needs to be resolved. As a result, EPA is specifying these conditions as unusual operating conditions and will

[67] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

require UST owners and operators investigate and address them.

• Clarify that an alarm during release detection monitoring, which indicates a potential release or compromise of the interstitial space, is subject to the reporting requirement

○ UST owners and operators must appropriately address release detection monitoring alarms. For example, continuously monitored systems will trigger an alarm indicating a potential release or that the interstitial space has been compromised. UST owners and operators must appropriately address all alarms in the same manner. EPA is adding interstitial monitoring in subpart E to emphasize its importance because the proposed secondary containment requirement for new and replaced system discussed in section A–2 will increase the use of interstitial monitoring. UST owners and operators will not be required to report alarms from defective equipment or false alarms as suspected releases. Also, UST owners and operators will not have to report leaks that are contained in the interstitial space, but they must investigate and repair the problems. However, as required in § 280.43(g), groundwater, soil moisture, or rainfall must not render the testing or sampling method inoperative so that a release could go undetected for more than 30 days. Finally, regulated substance in the interstitial space poses safety concerns and can also affect testing and sampling methods. For safety reasons, owners and operators must ensure the method of interstitial monitoring continues to operate and should always remove any regulated substance from the interstitial area.

• Require owners and operators of UST systems with secondary containment using interstitial monitoring follow integrity test requirements (proposed in section B–4) to confirm a suspected release and clarify actions UST owners and operators must take if a test confirms a leak or indicates a release exists

○ Requiring UST owners and operators to follow integrity test requirements of the interstitial area will ensure both inner and outer walls are checked when investigating a suspected release. EPA also is taking the position that it is important to clarify actions UST owners and operators must take if a test confirms a leak or indicates a release exists. If a leak is confirmed, UST owners and operators must correct or address the problem. In addition to options listed in the 1988 UST regulation, EPA is proposing to include closure as another option. Nothing in this proposal changes the requirement in subpart F for UST owners and operators to take corrective action if a release occurred.

What issues related to this change does EPA request comment or additional data on?

EPA did not identify specific issues for comment.

E. General Updates

1. Incorporate Newer Technologies

What is EPA proposing?

EPA is proposing to include technologies developed since issuing the 1988 UST regulation and clarify the use of those technologies. EPA is proposing these changes:

• Tanks—revise steel-fiberglass-reinforced-plastic composite in § 280.20(a)(3) to steel tank clad or jacketed with a non-corrodible material. UST owners and operators will be able to use jacketed tanks to meet EPA's proposed requirement for secondary containment and interstitial monitoring described in section A–2.

• Piping—revise fiberglass-reinforced plastic in § 280.20(b)(1) to non-corrodible material. This will allow UST owners and operators to install other piping, such as flexible plastic, that does not corrode.

• Release detection—add two release detection options: Continuous in-tank leak detection (CITLD) and statistical inventory reconciliation (SIR). UST owners and operators will be able to use these additional options to meet release detection requirements in § 280.40, as long as the methods meet the following:

○ CITLD—automatic tank gauge operating on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

○ SIR—quantitative analysis with a calculated leak rate capable of detecting a 0.2 gallon per hour leak rate within 30 days with a probability of detection of 0.95 and a probability of false alarm of 0.05 is required, based on a threshold that does not exceed one-half the minimum leak rate.

EPA is proposing to list three additional continuous interstitial monitoring methods in § 280.43(g): Liquid-filled, pressure, and vacuum interstitial monitoring. These methods must be capable of detecting a breach in both the inner and outer walls of the tank and piping.

Why is EPA proposing this change? What background information is available about this change?

Since EPA promulgated the 1988 UST regulation, newer tank, piping, and release detection technologies have been developed and are being used. EPA is proposing this change to acknowledge newer UST related technologies and clarify the use of these technologies.

Clad and Jacketed Tanks

The 1988 UST regulation allows these tank technologies: Coated and cathodically protected steel; fiberglass reinforced plastic; steel-fiberglass-reinforced-plastic composite; and metal without additional corrosion protection, provided that a corrosion expert determines the site is not corrosive enough to cause a release from corrosion during the tank's life. The 1988 regulation also allows use of other tank technologies that implementing agencies determine are no less protective of human health and the environment than those listed above. Additional non-corrodible materials are now used as claddings for steel tanks, and they are as effective at preventing corrosion as technologies in the 1988 regulation. EPA considers a cladding to be a non-corrosive dielectric material, bonded to the steel tank with sufficient durability to prevent corrosion during the tank's life. EPA did not include jacketed tanks in the 1988 regulation, even though they are no less protective of human health and the environment than technologies listed in the regulation. EPA considers jacketed to be a non-corrosive dielectric material that: Is constructed as secondary containment (jacketed) around a steel tank; has sufficient durability to prevent corrosion during the tank's life; and prevents a regulated substance released from the primary steel tank wall from reaching the environment. EPA estimates 10 percent of regulated tanks today are jacketed with a non-corrodible material and 18 percent are clad with a non-corrodible material.[68]

Non-Corrodible Piping

The 1988 UST regulation allows fiberglass-reinforced plastic piping as a non-corrodible piping option, as well as other piping technologies that implementing agencies determine are no less protective of human health and the environment than those in the

[68] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

regulation. Non-corrodible piping not made of fiberglass-reinforced plastic (in particular, flexible plastic piping) was installed beginning in the 1990s and has evolved over the past 20 years. Flexible plastic piping is made of various non-corrodible materials, such as polyethylene and polyurethane. EPA estimates at least 13 percent of regulated piping currently installed is made of non-corrodible materials that are not fiberglass-reinforced plastic.[69] Revising fiberglass-reinforced piping to non-corrodible piping will allow UST owners and operators to install other types of non-corrodible piping, such as flexible plastic, without requiring implementing agencies to make a determination.

Release Detection Technologies

The 1988 UST regulation allows UST owners and operators to use other methods that meet release detection performance criteria listed at § 280.43(h). Although CITLD and SIR are allowed under § 280.43(h), it is important to specify both by name.

CITLD

The 1988 UST regulation allows ATG systems as a recognized method of release detection. However, it is generally listed with performance requirements consistent with the method being used to perform a static test. ATG relies on system down time, absent product delivery or dispensing activities. In static testing mode, the ATG system analyzes product level and determines whether or not a leak is present during that down time. Yet for years, UST owners and operators used ATG systems as a means of continually monitoring tanks for potential releases. Continuous in-tank leak detection has evolved as a reliable means of providing release detection equivalent to other methods specified in § 280.41. Within this category of methods, EPA will also allow continuous in-tank methods where the system incrementally gathers measurements to determine the tank's leak status within the 30-day monitoring period. Today's proposal formally recognizes CITLD as a release detection method in § 280.43(d). Per § 280.41, a conclusive pass or fail result must be obtained within the 30-day monitoring period. All monitoring records must be maintained according to § 280.45. Another method of release detection is required in the event of an inconclusive result. UST owners and operators may perform an in-tank static test using the ATG system or another method in subpart D.

SIR

Today's proposal adds SIR by name to the final UST regulation and clarifies its use. SIR must:

- Report a quantitative result with calculated leak rate;
- Be capable of detecting a leak rate of at least 0.2 gallon per hour with a probability of detection of not less than 0.95 and a probability of false alarm of no greater than 0.05; and
- Use a threshold that does not exceed one-half the minimum detectable leak rate.

A quantitative result with a calculated leak rate is necessary to effectively perform release detection using SIR. Some SIR methods are qualitative based methods that simply provide a result of pass or fail without any additional information for UST owners and operators to gauge the validity of the reported results. Based on information in NWGLDE's list,[70] approximately 15 percent of SIR methods listed are qualitative-based methods. Many state UST implementing agencies already only allow the use of quantitative methods. Today's proposal will no longer allow qualitative SIR as an option for meeting the release detection requirement.

Consistent with some of the release detection methods described in § 280.43(h), EPA maintained the performance standard of 0.2 gallon per hour with a probability of detection of 0.95 and a probability of false alarm of 0.05. However, we are not requiring the additional standard of 150 gallons within a month per § 280.43(h). EPA included this additional standard in the 1988 UST regulation to primarily address external methods. EPA added the standard because it is more difficult to demonstrate that external methods meet a small hourly leak rate than a larger, though equivalent, volume. SIR is an in-tank monitoring method and the 0.2 gallon per hour standard with a probability of detection (Pd) of 0.95 and a probability of false alarm (Pfa) of 0.05 is the applicable standard to use.

SIR must also meet EPA's established requirement for probability of detection and probability of false alarm. In a normal probability distribution, SIR data typically analyzed through the calculation of the reportable values of minimum detectable leak rate (MDL) and the leak declaration threshold (T) are related as follows:

- MDL is always greater than T
- Pd = (1–Pfa), then MDL = 2 times T (*i.e.,* T = ½ MDL).

Any analysis of data indicating a threshold value greater than one-half minimum detectable leak rate should be appropriately investigated as a suspected release.

In this proposal, EPA is addressing the following issues associated with using SIR:

- SIR is not the same as inventory control
  - For years, users, vendors, and regulators incorrectly linked SIR to the inventory control method described in § 280.43(a). SIR is more sophisticated than inventory control and not subject to the same requirement to combine it with tank tightness testing and limit its use to 10 years. Note § 280.50(c)(2) states, ''In the case of inventory control, a second month of data does not confirm the initial result.'' This language allowed owners and operators to use a second month of inventory control data to confirm initial possible failure results. However, this allowance does not apply to SIR.
- Results for release detection, including SIR, are required within the 30-day monitoring period
  - EPA considered including a requirement that UST owners and operators obtain a record of SIR results within 30 days. However, we believe this requirement is adequately covered in 40 CFR part 280, subpart D of the 1988 UST regulation. As § 280.41 states, ''Tanks * * * must be monitored for releases at least every 30 days using one of the methods listed in § 280.43(d) through (h) * * *''. In today's proposal, EPA is adding a subsection to formally recognize SIR. A definitive result of pass or fail that identifies the tank's leak status is required within the 30-day monitoring period for all release detection methods, including SIR.
- Owners and operators must use another method of release detection if SIR results are inconclusive results
  - For years, implementing agencies have been concerned about inconclusive results when using SIR for release detection. In 1993, EPA issued a policy regarding inconclusive SIR results,[71] which says all methods used to meet release detection requirements in § 280.41 must obtain a conclusive result of pass or fail within the 30-day

[69] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical And Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

[70] National Work Group On Leak Detection Evaluation's (NWGLDE) List Of Leak Detection Evaluations for Storage Tank Systems: *http://www.nwglde.org/.*

[71] UST Technical compendium, question and answer number 21: *http://epa.gov/oust/compend/rd.htm.*

monitoring period. All monitoring records must be maintained according to § 280.45. For SIR, this means UST owners and operators must obtain a report determining release status within the 30-day monitoring period. Another method of release detection is required: when results are inconclusive; prior to sufficient data being gathered to generate an initial report at startup; or when a report is not available for any month of monitoring.

- Initial SIR report at startup
  - SIR methods need to gather data over a period of time in order to determine whether the tank is leaking. In some cases, regulatory agencies have addressed significant lag times between when data is collected to when a tank status determination is available to owners and operators. NWGLDE's list of third-party evaluated methods indicates the data collection period required for SIR methods ranges from 15 to 90 days. However, most methods require between 23 to 30 days to gather sufficient measurements that provide an accurate result. Any method that goes beyond a 30-day monitoring period is inconsistent with the established requirement and does not protect human health and the environment. It is imperative that UST owners and operators determine the status of their tanks within the established monitoring period to avoid increased risk of contamination.
  - EPA recognizes that a rolling collection of data may be used to analyze the leak status of the tank. For example, data from the previous 30-day monitoring period may be added to measurements taken within the current 30-day monitoring period to determine whether or not the tank is leaking. However, the majority of data must come from the current 30-day period and another method of release detection must be used to monitor the tank during this startup period. Subsequent monitoring continuously rolls data forward and provides sufficient data in a timely manner to determine pass or fail.

Interstitial Monitoring

EPA is proposing to add three methods of interstitial monitoring—vacuum, pressure, and liquid-filled methods—in § 280.43(g)(4). Although these interstitial methods are covered under the general description provided in § 280.43(g), These methods should be included as distinct interstitial monitoring options. Each of these methods must be capable of detecting breaches in both the inner and outer walls of secondarily contained tanks and secondarily contained piping.

What issues related to this change does EPA request comment or additional data on?

- Should EPA require specific performance standards for vacuum, pressure, and liquid-filled interstitial monitoring? If so, what should the performance standards be and why?
- Are there performance standards for release detection methods that should be added or removed?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

2. Updates to Codes of Practice Listed in the UST Regulation

What Is EPA Proposing?

EPA is proposing to update the codes of practice (also called standards or recommended practices) listed in the 1988 UST regulation to reflect new codes, changes to code names, and new nationally recognized associations and independent testing laboratories. EPA proposes to update, add, or remove codes of practice to the following specific areas of the 1988 UST regulation:

Section 280.11—Interim Prohibition for Deferred UST Systems

Updated Codes:

—NACE International Recommended Practice RP 0285, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection

Added Codes:

—NACE International Standard Practice SP 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems

—American Petroleum Institute Recommended Practice 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems

—Steel Tank Institute Recommended Practice R892, Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems

Section 280.20(a)(1)—Fiberglass Tanks

Updated Codes:

—Underwriters Laboratories Standard 1316, Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures

—Underwriters Laboratories of Canada S615, Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids

Removed Codes:

—American Society of Testing and Materials Standard D4021–86, Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks

Section 280.20(a)(2)—Steel Tanks With Cathodic Protection

Updated Codes:

—Steel Tank Institute Specification sti-P3® Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks

—Underwriters Laboratories Standard 1746, Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks

—Underwriters Laboratories of Canada S603, Standard for Steel Underground Tanks for Flammable and Combustible Liquids

—Underwriters Laboratories of Canada S603.1, Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids

—Underwriters Laboratories of Canada S631, Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protection Systems

—NACE International Recommended Practice RP 0285, Corrosion Control of Underground Storage Systems by Cathodic Protection

—Underwriters Laboratories Standard 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids

Added Codes:

—Steel Tank Institute Standard F841, Standard for Dual Wall Underground Steel Storage Tanks

Section 280.20(a)(3)—Clad or Jacketed Steel Tanks

Updated Codes:

—Underwriters Laboratories Standard 1746, Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks

Added Codes:

—Steel Tank Institute Specification F894, ACT–100® Specification for External Corrosion Protection of FRP Composite Steel USTs

—Steel Tank Institute Specification F961, ACT–100–U® Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks

—Steel Tank Institute Specification F922, Steel Tank Institute Specification for Permatank®

Removed Codes:

—Association for Composite Tanks ACT–100, Specification for the

Fabrication of FRP Clad Underground Storage Tanks

Section 280.20(a)(6)—Secondary Containment Tanks (New Addition to the Regulation—See Section A–2)

Added Codes:

—Underwriters Laboratories Standard 58, Standard for Steel Underground Tanks for Flammable and Combustible Liquids
—Underwriters Laboratories Standard 1316, Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures
—Underwriters Laboratories Standard 1746, Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks
—Steel Tank Institute Standard F841, Standard for Dual Wall Underground Steel Storage Tanks
—Steel Tank Institute Specification F922, Steel Tank Institute Specification for Permatank®

Section 280.20(b)(1)—Non-corrodible Piping

Updated Codes:

—Underwriters Laboratories Standard 971, Standard for Non-Metallic Underground Piping for Flammable Liquids
—Underwriters Laboratories of Canada Standard S660, Standard for Non-Metallic Underground Piping for Flammable Liquids

Removed Codes:

—Underwriters Laboratories Standard 567, Pipe Connectors for Flammable and Combustible and LP Gas
—Underwriters Laboratories of Canada Standard CAN 4–S633–M81, Flexible Underground Hose Connectors

Section 280.20(b)(2)—Steel Piping With Cathodic Protection

Updated Codes:

—American Petroleum Institute Recommended Practice 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems
—NACE International Standard Practice SP 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems

Added Codes:

—Underwriters Laboratories Subject 971A, Outline of Investigation for Metallic Underground Fuel Pipe
—Steel Tank Institute Recommended Practice R892, Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems
—NACE International Recommended Practice RP 0285, Corrosion Control of Underground Storage Systems by Cathodic Protection

Removed Codes:

—National Fire Protection Association Standard 30, Flammable and Combustible Liquids Code
—American Petroleum Institute Publication 1615, Installation of Underground Petroleum Storage Systems

Section 280.20(b)(3)—Metal Piping Without Additional Corrosion Protection

Removed Codes:

—National Fire Protection Association Standard 30, Flammable and Combustible Liquids Code
—National Association of Corrosion Engineers Standard RP–01–69, Control of External Corrosion on Submerged Metallic Piping Systems

Section 280.20(b)(5)—Secondary Containment Piping (New Addition to the Regulation—See Section A–2)

Added Codes:

—Underwriters Laboratories Standard 971, Standard for Non-Metallic Underground Piping for Flammable Liquids
—Underwriters Laboratories Subject 971A, Outline of Investigation for Metallic Underground Fuel Pipe

Section 280.20(d)—Installation

Updated Codes:

—American Petroleum Institute Publication 1615, Installation of Underground Petroleum Storage System
—Petroleum Equipment Institute Publication RP100, Recommended Practices for Installation of Underground Liquid Storage Systems

Added Codes:

—National Fire Protection Association Standard 30, Flammable and Combustible Liquids Code
—National Fire Protection Association Standard 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages

Removed Codes:

—American National Standards Institute Standard B31.3, Petroleum Refinery Piping
—American National Standards Institute Standard B31.4, Liquid Petroleum Transportation Piping System

Section 280.21—Lining Inspection Standards (New Addition to the Regulation—See Section E–3)

Added Codes:

—American Petroleum Institute Recommended Practice 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks
—National Leak Prevention Association Standard 631, Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks
—Ken Wilcox Associates Recommended Practice, Recommended Practice for Inspecting Buried Lined Steel Tanks Using a Video Camera

Section 280.21(e)—Upgrade Requirements for Previously Deferred UST Systems (New Addition to the Regulation—See Section C)

Added Codes:

—NACE International Recommended Practice RP 0285, Control of Underground Storage Tank Systems by Cathodic Protection
—NACE International Standard Practice SP 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems
—National Leak Prevention Association Standard 631, Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks
—American Society for Testing and Materials Standard G158, Standard Guide for Three Methods of Assessing Buried Steel Tanks

Section 280.30—Spill and Overfill Control

Updated Codes:

—National Fire Protection Association Standard 385, Standard for Tank Vehicles for Flammable and Combustible Liquids
—American Petroleum Institute Recommended Practice 1621, Bulk Liquid Stock Control at Retail Outlets

Added Codes:

—American Petroleum Institute Recommended Practice 1007, Loading and Unloading of MC 306/DOT 406 Cargo Tank Motor Vehicles

Removed Codes:

—National Fire Protection Association Standard 30, Flammable and Combustible Liquids Code

Section 280.31—Operation and Maintenance of Corrosion Protection

Updated Codes:

—NACE International Recommended Practice RP 0285, Control of Underground Storage Tank Systems by Cathodic Protection

Added Codes:

—NACE International Standard Practice SP 0169, Control of External Corrosion on Underground or Submerged Metallic Piping Systems
—NACE International Test Method TM 0101, Measurement Techniques

Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Tank Systems
—NACE International Test Method TM0497, Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems
—Steel Tank Institute Recommended Practice R051, Cathodic Protection Testing Procedures for sti-P3 USTs

Section 280.32—Compatibility

Removed Codes:

—American Petroleum Institute Publication 1626, Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations
—American Petroleum Institute Publication 1627, Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations

Section 280.33—Repairs

Updated Codes:

—National Fire Protection Association Standard 30, Flammable and Combustible Liquids Code
—American Petroleum Institute Recommended Practice RP 2200, Repairing Crude Oil, Liquified Petroleum Gas, and Product Pipelines
—American Petroleum Institute Recommended Practice RP 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks
—National Leak Prevention Association Standard 631, Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks

Added Codes:

—National Fire Protection Association Standard 326, Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair
—Steel Tank Institute Recommended Practice R972, Recommended Practice for the Addition of Supplemental Anodes to sti-P3® Tanks
—NACE International Recommended Practice RP 0285, Control of Underground Storage Tank Systems by Cathodic Protection
—Fiberglass Tank and Pipe Institute Recommended Practice T–95–02, Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks

Section 280.36—Secondary Containment Testing (New Addition to the Regulation—See Section B–4)

Added Codes:

—Steel Tank Institute Recommended Practice R012, Recommended Practice for Interstitial Tightness Testing of Existing Underground Double Wall Steel Tanks
—Fiberglass Tank and Pipe Institute Protocol, Field Test Protocol for Testing the Annular Space of Installed Underground Fiberglass Double and Triple-Wall Tanks with Dry Annular Space

Section 280.37—Walkthrough Inspections (New Addition to the Regulation—See Section B–1)

Added Codes:

—Petroleum Equipment Institute Recommended Practice RP 900, Recommended Practices for the Inspection and Maintenance of UST Systems

Section 280.43(a)—Inventory Control

Updated Codes:

—American Petroleum Institute Recommended Practice RP 1621, Bulk Liquid Stock Control at Retail Outlets

Section 280.43(g)—Interstitial Monitoring

Removed Codes:

—Steel Tank Institute Standard F841, Standard for Dual Wall Underground Steel Storage Tanks (moved to new section 280.20(a)(6))

Section 280.71—Permanent Closure

Updated Codes:

—American Petroleum Institute Recommended Practice RP 1604, Closure of Underground Petroleum Storage Tanks
—American Petroleum Institute Recommended Practice RP 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks
—The National Institute for Occupational Safety and Health Publication 80–106, Criteria for a Recommended Standard * * * Working in Confined Space

Added Codes:

—American Petroleum Institute Recommended Practice 2016, Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks
—National Fire Protection Association Standard 326, Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing this change to update the codes of practice associated with regulated UST systems. The 1988 UST regulation relies heavily on codes of practice developed by nationally recognized associations or independent testing laboratories.

EPA reviewed information on more than 200 codes of practice from more than 25 code-making groups that have been developed or revised since the 1988 regulation.[72] As a result of this review, EPA proposes to add 18 codes of practice not previously listed in the 1988 regulation, remove or move 12, and update all codes of practice in the 1988 UST regulation (see the specific additions, updates, and removals listed above). EPA is proposing to add the 18 codes of practice that were previously not listed because they are applicable to the UST regulation and did not exist when EPA originally promulgated the 1988 UST regulation. EPA is proposing to remove or move the 12 codes of practice in the 1988 UST regulation for one of the following reasons:

- The code of practice is out of date, no longer available, was withdrawn, or rescinded;
- The code of practice did not provide any information appropriate to the section of the regulation where it was referenced;
- The information in the code of practice did not adequately address the part of the regulation where it was referenced; or
- The code of practice is no longer needed.

For example, the Association for Composite Tanks ACT–100 tank standard was listed in § 280.20(a)(3) as a code of practice for meeting the clad tank requirement. EPA is removing this code of practice because both the association and code of practice no longer exist.

In several cases, EPA is proposing to move a code of practice from one section of the 1988 UST regulation to another section. For example, EPA is proposing to move Steel Tank Institute Standard F841, Standard for Dual Wall Underground Steel Storage Tanks from § 280.43(g)—interstitial monitoring to § 280.20(a)(6)—secondary containment tanks. EPA is proposing this because we are adding secondary containment requirements to the performance standards for new UST systems portion of this proposed UST regulation.

Note: EPA is aware of at least one code of practice (Petroleum Equipment Institute standard for testing of spill, overfill, interstitial areas, and release detection)

[72] E2, Incorporated, memoranda and analyses submitted under Contract EP–W–05–018, ''U.S. Environmental Protection Agency. Underground Storage Tanks/Leaking Underground Storage Tanks Analytical and Technical Support.'' These supporting materials can be found in the docket for the proposed rulemaking.

currently being developed that could be potentially relevant to this proposed UST regulation. Other standards may be developed before EPA publishes a final UST regulation. If so, EPA will consider including them in the final UST regulation.

What issues related to this change does EPA request comment or additional data on?

• Should other codes of practice be added to or removed from the UST regulation? If so, please provide EPA with information about the code and the specific location in the UST regulation where the code should be included or removed.

• The regulations at § 280.20(d) require that all tanks and piping be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with manufacturer's instructions. Since the installation codes of practice also address other UST system components such as spill and overfill, should EPA consider revising § 280.20(d) such that all portions of the UST system must be installed according to a code of practice and according to manufacturer's instructions?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

3. Updates to Remove Old Upgrade and Implementation Deadlines

What is EPA proposing?

EPA is proposing to revise the UST regulation to remove references to the 1998 deadline and old phase-in schedules, while continuing to allow testing of corrosion protection and release detection. For those deferred UST systems EPA is proposing to regulate, we are proposing those systems be allowed to upgrade with spill, overfill, and corrosion protection. EPA is proposing the following specific revisions:

Revise upgrading of existing UST systems in the 1988 UST regulation (§ 280.21).

• Remove the 1998 upgrade deadline references, but continue to allow:

○ Testing of internally-lined USTs;

○ Tanks and piping with cathodic protection; and

○ Upgrades of deferred UST systems EPA is proposing to regulate, including wastewater treatment tank systems, airport hydrant systems, UST systems with field-constructed tanks, and UST systems that store fuel solely for use by emergency power generators. See section C for additional information on deferred UST systems.

• Require UST systems not upgraded with corrosion protection, spill, or overfill prevention be permanently closed according to subpart G, unless the implementing agency determines an upgrade is appropriate or the UST system was deferred in the 1988 UST regulation.

Revise release detection requirements in the 1988 UST regulation.

• Section 280.40

○ Remove phase-in schedule for release detection probabilities;

○ Remove phase-in schedule for release detection monitoring;

○ Remove references to upgrade deadlines;

○ Remove references to existing USTs; and

○ Address deferred UST systems EPA is proposing to regulate, add language about implementing release detection monitoring for these systems in § 280.40(c).

• Section 280.41

○ Remove inventory control and annual tightness testing as a regulatory option;

○ Remove reference to upgrade deadlines; and

○ Make the inventory control and five year tightness testing language historical by putting language in this section in the past tense.

• Section 280.42

○ Remove 1998 references and upgrade language for existing hazardous substance UST systems.

EPA is proposing to remove the phase-in schedule in § 280.91 of subpart H to acknowledge that financial responsibility implementation deadlines are passed and remove references to § 280.91 and the deadlines in § 280.90. In addition, EPA is proposing to revise § 280.91 to reference the phase-in schedule for deferred UST systems EPA is proposing to regulate at § 280.10.

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing these changes to acknowledge that the 1998 deadline for upgrading UST systems with release prevention and the 1990s release detection and financial responsibility deadlines passed more than a decade ago. Owners and operators had more than two decades to upgrade their UST systems and meet the 1988 UST regulation. In addition, all UST facilities have been inspected at least once and are required to meet release detection, release prevention, and financial responsibility requirements. EPA is proposing owners and operators of upgraded UST systems continue conducting cathodic protection and internal lining testing consistent with how they previously performed these tests.

For release detection, EPA is proposing to eliminate the phase-in for both release detection probabilities and release detection monitoring. EPA is proposing to eliminate these two phase-in parts because the deadlines for implementing these requirements have passed. Owners and operators have been implementing these requirements for more than two decades. The last phase-in period applied to systems installed between 1980 and 1988, giving owners and operators until 1993 to meet the subpart D requirements. Any new UST installed after 1993 had to meet release detection requirements when installed.

To meet the release detection requirement, § 280.41 allows owners and operators of USTs less than 10 years old to use a combination of monthly inventory control with tank tightness testing every five years, until the UST has been installed for 10 years. When the UST is 10 years old, owners and operators must use another release detection method listed in subpart D. For new and replaced UST systems installed after the effective date of the final UST regulation, interstitial monitoring will be required. The new interstitial monitoring requirement will make inventory control and tank tightness testing obsolete as a release detection method 10 years after the UST regulation is finalized.

For hazardous substance UST systems release detection, EPA is proposing to remove 1998 deadline and upgrade references. The 1988 UST regulation in § 280.41 required existing UST systems meet the requirements for petroleum UST systems until 1998. After 1998, all new and existing hazardous substance UST systems must meet requirements for new hazardous substance UST systems. Since the 1998 deadline has passed, these changes will clarify the hazardous substance UST system requirements.

For financial responsibility, EPA is proposing to remove the phase-in dates in § 280.91. These phase-in dates passed more than a decade ago and are no longer needed. In addition, § 280.90(b) and (e) contain references to § 280.91 and compliance dates that need to be removed.

UST systems with field constructed tanks, airport hydrant systems, and wastewater treatment tank systems may be upgraded according to § 280.21. However, EPA is proposing to no longer allow UST systems regulated under the 1988 UST regulation to be upgraded if they have never met the upgrade requirements. Unless the implementing

agency determines that an UST system is acceptable to upgrade, non-upgraded UST systems must be permanently closed according to the closure requirements in subpart G. UST systems that have not been upgraded are older and have been in the ground for more than two decades. In addition, metal USTs and piping without corrosion protection pose a significant risk to human health and the environment because the metal in contact with soil corrodes. EPA is proposing that implementing agencies make case-by-case determinations on when to allow upgrades. EPA does not expect implementing agencies to allow continued use of USTs or piping not upgraded with corrosion protection. However, some implementing agencies may decide to allow owners and operators of UST systems with corrosion protection, but without spill or overfill prevention, to add spill or overfill prevention instead of requiring permanent closure.

The proposed requirements in § 280.21 will allow UST systems EPA is proposing to no longer defer to be upgraded. See section C for additional information on upgrading these UST systems.

What issues related to this change does EPA request comment or additional data on?

- Does removing the deadlines and making upgrades historical cause any unintended regulatory consequences?
- Should EPA consider not allowing the implementing agency the flexibility of making a determination to allow an upgrade?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

4. Editorial and Technical Corrections

What is EPA proposing?

EPA is proposing these editorial corrections to the 1988 UST regulation:

- Where ''industry codes'' and ''codes and standards'' are used, replace with ''codes of practice''
- Revise to appropriately use the terms: part, subpart, section, and paragraph
- Section 280.10(c)(3)—change ''10 CFR part 50 Appendix A'' to ''10 CFR part 50''
- Section 280.20(a)(2), paragraph (C) in the note—change ''G03.1'' to ''603.1''
- Section 280.21(b)(2)(iii)—change ''by conducting two (2) tightness tests that meet the requirements of § 280.43(c). The first tightness test must be conducted prior to installing the cathodic protection system. The second tightness test must be conducted between three (3) and six (6) months following the first operation of the cathodic protection system; or'' to ''by conducting two tightness tests that meet the requirements of § 280.43(c). The first tightness test must be conducted prior to installing the cathodic protection system. The second tightness test must be conducted between three and six months following the first operation of the cathodic protection system; or''
- Section 280.20(c)(1)(ii)(C)—change ''operator'' to ''transfer operator''
- Section 280.22(a)—change ''Any owner who brings an underground storage tank system into use after May 8, 1986, must within 30 days of bringing such tank into use, submit, in the form prescribed in Appendix I of this part, a notice of existence of such tank system to the state or local agency or department designated in Appendix II of this part to receive such notice.'' to ''After May 8, 1986, an owner must submit notice of a tank system's existence to the implementing agency within 30 days of bringing the underground storage tank system into use. Owners must use the form in Appendix I of this part.''
- Section 280.22(g)—change ''The form provided in Appendix III of this part may be used to comply with this requirement.'' to ''The statement provided in Appendix III of this part, when used on shipping tickets and invoices, may be used to comply with this requirement.''
- Section 280.31—change ''for as long as the UST system is used to store regulated substances'' to ''until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71.''
- Section 280.31—change ''steel'' to ''metal''
- Section 280.33(c)—change ''fiberglass pipes'' to ''non-corrodible pipes''
- Section 280.33(g)—change ''for the remaining operating life of the UST system'' to ''until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71.''
- Section 280.34—change ''Resource Conservation and Recovery Act'' to ''Solid Waste Disposal Act''
- Section 280.34(b)(2)—change cite from ''280.31'' to ''280.31(d)''
- Section 280.40(a)(3)—change ''probability of detection (Pd) of 0.95 and probability of false alarm (Pfa) of 0.05.'' to ''probability of detection of 0.95 and probability of false alarm of 0.05.''
- Section 280.41(b)(2)—change ''conduct'' to ''conducted''
- Section 280.42(a)(1)(ii)—change ''released from the tank system'' to ''leaked from the primary containment''
- Section 280.42(d)—delete ''jacketing of'' from ''* * * jacketing of double-walled pipe)* * *''
- Section 280.43(b)(4)—change ''leak'' to ''release''
- Section 280.43(b)(5)—delete ''manual'' from ''manual inventory control''
- Section 280.52(a)(1)—change ''repair, replace, or upgrade the UST system'' to ''repair, replace, upgrade, or close the UST system''
- Section 280.52(a)(1)—change ''leak'' to ''release''
- Section 280.52(a)(2)—change ''leak'' to ''release''
- Section 280.52(a)(3)—change ''leak'' to ''release''
- Section 280.92—definition for provider of financial assurance—change ''§§ 280.95–280.103'' to ''§§ 280.95–280.107''
- Section 280.92, § 280.95(b)(1)(iii), § 280.95(c)(5), and § 280.95(d)—change ''Rural Electrification Administration'' to ''Rural Utilities Service''
- Section 280.94(a)(1)—change ''§§ 280.95–280.103'' to ''§§ 280.95–280.107''
- Section 280.95(b)(1)(ii)—change ''165.145'' to ''§ 265.145''
- Section 280.95(c)(5)(i)—change ''form'' to ''from''
- Section 280.95(d)—change ''[insert: ''suddent accidential releases'' and/or ''nonsudden accidential releases]'' to ''[insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases'']''
- Section 280.95(d)—change ''Liabilitly'' to ''Liability'' under Letter From Chief Financial Officer
- Section 280.95(d)—change ''lastest'' to ''latest'' under Letter From Chief Financial Officer, Alternative I, Number 11
- Section 280.95(d)—remove ''$'' symbol for Number 8 under Alternative II of the Letter From Chief Financial Officer
- Section 280.95(d)—add ''$'' symbol for Numbers 13 and 14 under Alternative II of the Letter From Chief Financial Officer
- Section 280.96(b)—change ''§ 280.110(c)'' to ''§ 280.114(e)''
- Section 280.96(c), Guarantee (Recital 3)—change three ''40 CFR 280.108'' citations to ''40 CFR § 280.112''
- Section 280.96(c), Guarantee (Recital 3)—change ''accidential'' to ''accidental''
- Section 280.96(d)—change ''280.108'' to ''§ 280.112''
- Section 280.97(a)—change ''§ 290.93'' to ''§ 280.93''

• Section 280.98(b)—change ''Resource Conservation and Recovery Act (RCRA)'' to Solid Waste Disposal Act''

• Section 280.98(b), Performance Bond, paragraph 4,—change ''[* * * either ''sudden'' or ''nonsudden'' or ''sudden and nonsudden''] accidental releases arising from'' to ''either ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] arising from * * *''

• Section 280.98(b)—change two ''40 CFR 280.108'' citations to ''40 CFR 280.112''

• Section 280.98(b)—add end brackets to ''State of Incorporation'' and ''Liability Limit''

• Section 280.98(d)—change ''40 CFR 280.108'' citation to ''40 CFR 280.112''

• Section 280.99(b)—change ''Resource Conservation and Recovery Act of 1976'' to Solid Waste Disposal Act''

• Section 280.99(b)—change ''persuant'' to ''pursuant''

• Section 280.99(b)—change ''curent'' to ''current''

• Section 280.99(c)—change ''40 CFR 280.108'' citation to ''40 CFR 280.112''

• Section 280.101(d)—change ''280.107(b)(5)'' to ''§ 280.111(b)(8)''

• Section 280.103(b)(1), Trust Agreement, paragraph 2—change ''standpoint'' to ''[insert ''standby'' where trust agreement is standby trust agreement]''

• Section 280.103(b)(1), Trust Agreement, section 4—add opening quotation mark for ''Third-Party Liability Claims''

• Section 280.103(b)(1), Trust Agreement, section 4—add opening quotation mark for ''compensating third parties for bodily injury and property damage caused by''

• Section 280.104(b)—change ''Moody's rating of Aaa, A, A'' to ''Moody's rating of Aaa, Aa, A''

• Section 280.104(b)—change ''refunded issues and'' to ''refunded issues, and''

• Section 280.104(e), Letter From Chief Financial Officer—change ''[insert: ''sudden accidental releases'' and/or ''nonsudden accidental releases'']'' to ''[insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases'']''. Note that this change occurs in two places in the letter.

• Section 280.104(e), Letter From Chief Financial Officer, last paragraph—change ''not backed by third-party credit enhancement or are insured by a municipal bond insurance company.'' to ''not backed by third-party credit enhancement or insured by a municipal bond insurance company.''

• Section 280.105(c)—change ''[insert: ''sudden accidental releases'' and/or ''nonsudden accidental releases'']'' to ''[insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases'']''

• Section 280.105(c)—change 10(a) and 11(a) under Worksheet for Municipal Financial Test, Part II from ''Debt Service (from 4d)'' to ''Debt Service (from 4c)''

• Section 280.106(a)(1)—change ''§ 280.104(c)'' to ''§ 280.104(d) and § 280.104(e)''

• Section 280.106(b)—change ''§ 280.114(c)'' to ''§ 280.114(e)''

• Section 280.106(d), under Local Government Guarantee With Standby Trust Made by a State, recital 7d—change ''loaded'' to ''loaned''

• Section 280.106(e), under Local Government Guarantee Without Standby Trust Made by a State, recital 7d—change ''loaded'' to ''loaned''

• Section 280.106(e), under Local Government Guarantee Without Standby Trust Made by a Local Government, recital 8d—change ''loaded'' to ''loaned''

• Section 280.107(d)—change ''[insert: ''sudden accidental releases'' and/or ''nonsudden accidental releases'']'' to ''[insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases'']''

• Section 280.107(d), third paragraph under Letter From Chief Financial Officer—change ''ten'' to ''five''

• Section 280.109(b)(3)—change ''§ 280.107(b)'' to ''§ 280.111(b)''

• Section 280.111(b)(9)(ii)—change ''§ 280.107(a)(3)'' to ''§ 280.107(c)''

• Section 280.111(b)(9)(iii)—change ''§ 280.107(a)(3)'' to ''§ 280.107(c)''

• Section 280.111(b)(9)(iii)—change ''§ 280.107(a)(3)(i)'' to ''§ 280.107(c)(1)''

• Section 280.111(b)(9)(iii)—change ''§ 280.107(a)(3)(ii)'' to ''§ 280.107(c)(2)''

• Section 280.113—change ''properly'' to ''permanently''

EPA is proposing these technical corrections to the 1988 UST regulation:

• Section 280.12—revise exclusion (d) of the definition of UST to incorporate a revision in section 9001 of the SWDA as shown below

''(d) Pipeline facility (including gathering lines):

(1) Which is regulated under chapter 601 of Title 49, or

(2) Which is an intrastate pipeline facility regulated under state laws as provided in chapter 601 of Title 49, and which is determined by the Secretary of Transportation to be connected to a pipeline or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline;''

• Section 280.43(b)(1)—replace ''a period of at least 36 hours'' with ''the minimum duration of test in the table below''; this updates current UST capacity allowances when using manual tank gauging as a method of release detection

○ Section 280.43(b)(4)—replace existing table with the one below; this ensures information in the table is consistent with the change in § 280.43(b)(1)

Nominal tank capacity	Minimum duration of test	Weekly standard (one test)	Monthly standard (four test average)
550 gallons or less	36 hours	10 gallons	5 gallons.
551–1,000 gallons (when tank diameter is 64")	44 hours	9 gallons	4 gallons.
551–1,000 gallons (when tank diameter is 48")	58 hours	12 gallons	6 gallons.
551–1,000 gallons (also requires periodic tank tightness testing).	36 hours	13 gallons	7 gallons.
1,001–2,000 gallons (also requires periodic tank tightness testing).	36 hours	26 gallons	13 gallons.

○ Section 280.41(a)(2)—modify tank sizes in text so it is consistent with the table above. ''Tanks with capacity of 550 gallons or less and tanks with a capacity of 551 to 1000 gallons that meet the tank diameter criteria in § 280.43(b) may use manual tank gauging (conducted in accordance with § 280.43(b))''; and

○ Section 280.43(b)(5)—modify tank sizes in text so it is consistent with the table above. ''Tanks of 550 gallons or less nominal capacity and tanks with a nominal capacity of 551 to 1000 gallons that meet the tank diameter criteria in the table in (b)(4) may use this as the sole method of release detection. All other tanks with a nominal capacity of 551 to 2,000 gallons may use the method in place of manual inventory control in § 280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this subpart.''

- Section 280.43—remove the requirement for inventory control in the automatic tank gauging release detection method
- Section 280.92—change the definition of accidental release from ''release of petroleum from an underground storage tank'' to ''release of petroleum arising from operating an underground storage tank''
- Section 280.104(h)—add this subsection: ''(h) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the bond rating test or within 30 days of notification by the Director of the implementing agency that it no longer meets the requirements of the bond rating test, the owner or operator must notify the Director of such failure within 10 days.''
- Revise Appendix III to read: ''Note. A federal law (the Solid Waste Disposal Act, as amended, requires owners of certain underground storage tanks to notify implementing agencies of the existence of their tanks. Notifications must be made within 30 days of bringing the tank into use. Consult EPA's regulations at 40 CFR 280.22 to determine if you are affected by this law.''

Why is EPA proposing this change? What background information is available about this change?

EPA is proposing to make editorial and technical corrections to the 1988 UST regulation. Proposed editorial corrections include: correcting misspellings; capitalizing words; removing unused acronyms; using conventional number formatting; and appropriately referring to parts, subparts, sections, and paragraphs. In addition, EPA is proposing technical corrections which include updating the regulation to incorporate statutory changes that occurred since the 1988 regulation was promulgated and clarifying long-standing Agency policies.

The editorial change to § 280.10(c)(3) makes the citation to Nuclear Regulatory Commission regulation more general, in the event requirements for emergency generator UST systems at nuclear power facilities are moved from Appendix A to some other part of the Nuclear Regulatory Commission regulation.

The editorial change to § 280.22(a) makes the language easier to understand and consistent with the proposed new paragraphs of § 280.22(b) and § 280.22(h).

The editorial change to § 280.20(c)(1)(ii)(C) clarifies that the transfer operator needs to be alerted. This change makes the language consistent with § 280.20(c)(1)(ii)(B). The editorial change to § 280.22(g) clarifies the content of and how to use Appendix III of the 1988 UST regulation to meet the notification requirement.

The editorial changes to § 280.31 will eliminate any potential confusion with the temporary closure requirement and ensure all metal components comply with this section. Temporary closure requires owners and operators operate and maintain corrosion protection even when the UST system is emptied. The operation and maintenance of corrosion section indicates that releases due to corrosion must be prevented as long as the UST system is used to store regulated substances. While EPA has interpreted that the UST system is used to store regulated substances even if it is empty during temporary closure, this proposed change will clarify this position. In addition, UST systems have metal components, other than steel, protected from corrosion. Changing the word steel to metal at the beginning of this section will make it clear that the operation and maintenance requirements for corrosion protection apply to all metal components.

The editorial change to § 280.33(g) will clarify when the operating life of an UST system ends. EPA does not define an operating life; rather, we describe permanent closure and change-in-service. With this change, EPA is proposing the operating life of an UST system ends when an owner or operator permanently closes the UST system or the UST system undergoes a change-in-service from regulated to unregulated.

EPA is proposing a technical correction to revise the definition of UST as it relates to pipeline facilities. This revision directly incorporates a change made to Section 9001 of the Solid Waste Disposal Act after the 1988 UST regulation was promulgated.

EPA is proposing a technical correction to clarify that hazardous substance USTs must be able to contain regulated substances released from the UST system until the substances are detected and removed. Based on the 1988 UST regulation definition of release, the statement implies that a regulated substance has reached the environment. Because a regulated substance should be contained in the UST system's secondary containment, EPA is proposing to change the term released to leaked, indicating a leak occurred from the primary containment but did not reach the environment. Therefore, secondary containment would then contain the leak. The editorial change to § 280.42(d) removes confusion about whether piping that is already double-walled also needs to be jacketed.

EPA is proposing technical corrections to § 280.43(d) which will codify long-standing Agency policies for using manual tank gauging and automatic tank gauging. These changes update UST capacity allowances when using manual tank gauging and remove the requirement for USTs using automatic tank gauging to conduct additional inventory control. Since 1990 and 1989, EPA allowed these deviations from the 1988 UST regulation through policy for manual tank gauging and automatic tank gauging, respectively. EPA also stated these allowances in our publications: *Manual Tank Gauging For Small Underground Storage Tanks; Musts For USTs: A Summary of Federal Regulations For Underground Storage Tank Systems;* and *Straight Talk On Tanks: Leak Detection Methods For Petroleum Underground Storage Tanks And Piping.* With regard to manual tank gauging, note the expanded coverage of larger tanks is limited in some respects by the diameter of the tank as noted in the revised table.

EPA is proposing to add closure as an option at § 280.52(a)(1) to provide owners and operators additional flexibility when suspected and confirmed releases occur.

EPA is proposing an editorial correction of ''leak'' to ''release'' in § 280.43(b)(4) and § 280.52(a)(1), (2), and (3) because release is defined as regulated substance reaching the environment in the 1988 UST regulation.

EPA is updating references of ''Rural Electrification Administration'' (REA) to ''Rural Utilities Services'' (RUS). Under the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994, REA reorganized to RUS.

EPA is proposing to amend the definition of ''accidental release'' under § 280.92 so it matches the definition stated in the original preamble for the financial responsibility requirements

(53 FR 43334). EPA intended the definition in the preamble to be included in the 1988 UST regulation, but two important words were inadvertently omitted. By changing this, EPA is clarifying that owners and operators are required to have financial responsibility for releases arising from operating USTs (including releases due to filling USTs and releases occurring at dispensers).

The editorial change to § 280.103(b)(1) will correct a typographical error [*i.e.,* ''standpoint''] and clarify the trust fund language.

The editorial change to the last paragraph of the Letter to the Chief Financial Officer under § 280.104(e) clarifies that no credit enhancement of any type is permitted for revenue bonds, consistent with the preamble to the 1988 UST regulation (58 FR 9033).

The editorial addition of § 280.104(h) will make requirements for the local government bond rating test under § 280.104 consistent with requirements of the financial test under § 280.95(g). EPA included this requirement for private owners and operators in the 1988 UST regulation but inadvertently omitted it for local government owners and operators.

The editorial change to the third paragraph of the Letter From Chief Financial Officer under § 280.107(d) will make the wording of the letter consistent with the amount of coverage required in § 280.107(b).

EPA defines and discusses permanent closure, not proper closure, in the 1988 UST regulation. This clarified that in § 280.113, financial responsibility is required during temporary closure.

The update to Appendix III removes old dates and clarifies the language in the statement for shipping tickets and invoices.

What issues related to this change does EPA request comment or additional data on?

- Are there other editorial corrections (such as typographical errors or inaccurate references) EPA should make?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

F. Alternative Options EPA Considered

What options did EPA consider?

In developing today's proposed regulatory changes (hereafter the Preferred Option), EPA considered and evaluated variations of a subset of the proposed regulatory requirements using two alternative options (hereafter Option 1 and Option 2). The table below highlights differences between our Preferred Option and Options 1 and 2. Some of the proposed regulatory requirements do not vary across the options (for example, notification of ownership changes is required in all three). As a result, proposed regulatory changes discussed earlier in the preamble, but not listed here, mean those changes are in effect in all three options. Overall, Options 1 and 2 consist of regulatory changes that are more and less stringent, respectively, than proposed changes in the Preferred Option. After reviewing comments, EPA may use one or more of these options in whole or in part to establish the final UST regulation.

COMPARISON OF PREFERRED OPTION AND OPTIONS 1 AND 2

Proposed requirement	Options		
	Preferred	1	2
Walkthrough inspections	Monthly	Monthly	Quarterly.
Overfill prevention equipment tests	3 year	1 year	3 year.
Spill prevention equipment tests	1 year	Require replacement every 3 years (no testing).	1 year.
Secondary containment tests	3 year	1 year	Not required.
Elimination of flow restrictors in vent lines for all new tanks and when overfill devices are replaced.	Required	Required	No change.
Operability tests for release detection methods	1 year	1 year	3 year.
Change leak rate probabilities from 95/5 to 99/1 (Pd/Pfa)	Not required	Required	Not required.
Eliminate groundwater and vapor monitoring as release detection methods.	5-year phase-out	Immediately	No change.
Remove deferrals for airport hydrant fuel distribution systems and UST systems with field-constructed tanks.	Regulate under alternative release detection requirements.	Require them to meet same release detection requirements as conventional USTs.	Maintain deferrals.

Below we explain Options 1 and 2, as well as our rationale for each. (Note that EPA conducted a regulatory impact analysis (RIA) for all three options. The results are discussed in the RIA document titled *Assessment Of The Potential Costs, Benefits, And Other Impacts Of The Proposed Revisions To EPA's Underground Storage Tank Regulations* which is available in the docket for this proposed regulation.)

What is EPA's rationale for Option 1?

In Option 1, EPA considered requiring annual tests of overfill prevention equipment and interstitial areas. EPA assessed the costs of conducting annual tests for these components and decided instead to propose overfill prevention equipment testing and interstitial integrity testing every three years. This will reduce the overall compliance cost burden on owners and operators without significantly compromising benefits of these tests. When compared to other components such as spill prevention equipment, both interstitial areas and overfill prevention equipment are less likely to fail or be damaged. Overfill prevention equipment is in the tank; interstitial areas for tanks and piping are typically buried several feet underground. Spill prevention equipment encounters frequent human and climate interaction, making it prone to frequent damage and failure. Secondary containment reduces the likelihood that a release into the environment will occur because a leak is contained if a breach of the inner wall occurs. As a result, less frequent periodic tests of overfill prevention equipment and interstitial areas would adequately ensure the integrity and functionality of equipment. In addition, a three year test requirement for these two components will match the inspection cycle, allowing inspectors to ensure tests are completed. Therefore,

testing overfill prevention equipment and interstitial areas every three years is sufficient.

In Option 1, EPA considered mandatory replacement of spill prevention equipment every three years, regardless of the spill prevention equipment's condition. As discussed earlier in the preamble, various sources indicated spill prevention equipment is a major source of confirmed releases and typically has a short lifespan. After EPA evaluated the cost of requiring spill prevention equipment replacement every three years, we determined the cost burden of this requirement on owners and operators would be significant. While developing today's proposal, EPA made a conscious effort to limit removing or replacing existing UST system equipment (for example, eliminating the use of ball floats as a form of overfill prevention in new tanks instead of requiring removal in existing tanks) to minimize impacts on owners and operators, both in terms of reducing compliance costs and interrupting daily operations. As a result, EPA instead is proposing annual tests of spill prevention equipment. This balances the benefits of properly functioning spill prevention equipment with the potential costs imposed on owners and operators.

When considering changes to existing release detection requirements, EPA evaluated the possibility of modifying the leak probability of detection (Pd) from 95 percent to 99 percent and the leak probability of false alarm (Pfa) from 5 percent to 1 percent. EPA initially believed increasing the Pd rate for release detection equipment performance would be a relatively low cost action that would significantly increase identifying potential releases to the environment. EPA also believed that decreasing the Pfa rate would be a relatively low cost means of reducing the number of nuisance alarms owners and operators experience. Because they would have a higher confidence that alarms identify real problems, owners and operators would be more likely to respond. Even though most equipment in use today is capable of meeting more stringent probability rates, almost all release detection devices would require some modification to achieve these results. Even a relatively minor software upgrade could be a significant cost to owners and operators. In addition, release detection vendors would need to perform significant testing and verification to determine whether their equipment would meet the new Pd/Pfa rates. After considering the potential cost impacts, other proposed requirements, such as training owners and operators and requiring periodic walkthrough inspections, are sound alternatives for environmental protection. Therefore, EPA instead is proposing periodic operation and maintenance for existing release detection equipment to ensure its proper operation.

EPA is proposing to eliminate groundwater and vapor monitoring as permissible methods of release detection. In Option 1, EPA considered an immediate ban of these two options as release detection methods because inspectors told us these methods are unsuitable and should be removed as soon as possible. Approximately 5 percent of UST systems use groundwater or vapor monitoring for release detection, which means the affected population of users is relatively small. Yet EPA recognizes this would require retrofitting or replacing existing equipment. To accommodate owners and operators and provide them with sufficient lead time to meet this requirement, EPA today is proposing a five year phase out for owners and operators to select, install, and begin using another method of release detection.

In evaluating release detection methods suitable for UST systems with field-constructed tanks and airport hydrant fuel distribution systems, EPA considered requiring these tanks and systems comply with the same release detection requirements conventional UST systems meet under 40 CFR part 280, subpart D. After assessing costs, technical feasibility, and potential impacts to facility operations, EPA decided to propose a release detection regulatory structure specific to field-constructed tanks and airport hydrant fuel distribution piping, per § 280.46 and § 280.47, respectively. It is sometimes impossible for very large tanks and piping volumes to achieve thresholds for current release detection methods. When a threshold is achievable, the time needed to reach it is often very long and impractical. The RIA indicates the total annual costs to meet conventional release detection requirements are $153 million, while total annual costs under the proposed alternative release detection requirements are $23 million. As a result, it is appropriate to propose release detection methods specific to these systems. This will effectively protect the environment by quickly detecting releases from these tanks and piping.

What is EPA's rationale for Option 2?

In comparing costs with benefits of potential proposed changes, EPA weighed different frequencies for walkthrough inspections and periodic equipment testing. In Option 2, EPA assessed quarterly walkthrough inspections and not requiring interstitial integrity testing as ways to reduce potential cost impacts on owners and operators. While quarterly walkthrough inspections would reduce costs to owners and operators, EPA is taking the position that a period less frequent than monthly walkthrough inspections would considerably reduce benefits. High operator turnover, frequency of small leaks at dispensers and submersible turbine sumps, and frequency of deliveries all contribute to the need for monthly walkthrough inspections. With that in mind, EPA today is proposing monthly walkthrough inspections so owners and operators can consistently and routinely verify proper UST system component performance. This will ensure problems are detected before a release occurs or contaminates the environment.

The 1988 UST regulation does not require owners and operators to ensure the integrity of secondarily contained areas, and EPA considered not requiring periodic interstitial integrity testing. Because of the Energy Policy Act secondary containment requirement for nearly all new and replaced tanks and piping, all UST systems will eventually be secondarily contained (including interstitial monitoring for release detection) and we should require periodic interstitial integrity testing to ensure leaks into secondary containment areas will be properly detected and contained. As described in Option 1, EPA considered annual interstitial integrity testing, but decided to propose a three year testing requirement, which will lower cost impacts of this requirement on owners and operators while retaining the environmental benefit of testing.

To reduce total compliance costs of today's proposal for owners and operators, EPA considered allowing continued use of flow restrictors in vent lines (that is, ball float valves) as an acceptable form of overfill prevention equipment. After considering stakeholders' concerns, EPA is taking the position that vent line flow restrictors present problems for operability and safety reasons. As described previously, EPA is proposing to eliminate ball float valves as overfill prevention for all new tanks and when overfill prevention is replaced in existing tanks.

EPA considered maintaining groundwater and vapor monitoring as acceptable forms of release detection in Option 2. All tanks and piping will

eventually use secondary containment with interstitial monitoring as their release detection method, and as a result, groundwater and vapor monitoring will eventually not be used. Stakeholders raised concerns about these two release detection methods, more than other methods. For both groundwater and vapor monitoring, releases travel through the environment to sampling points before releases are discovered. Other release detection methods provide more immediate detection of releases. In addition, numerous concerns were raised about frequent misapplications and improper designs of monitoring wells for these two methods. Consequently, EPA today is proposing to phase out groundwater and vapor monitoring as release detection methods. This will address stakeholders' concerns that UST systems using these two methods represent an unacceptable risk to the environment.

V. Updates to State Program Approval Requirements

What is EPA proposing?

EPA is proposing these substantive changes to the 1988 state program approval (SPA) regulation (40 CFR part 281) to make it consistent with certain Energy Policy Act requirements and certain proposed changes to the 1988 UST technical regulation (40 CFR part 280).

- Section 281.30(a), § 281.33(c)(2), and § 281.33(d)(3)—require secondary containment for new or replaced tanks and piping and under-dispenser containment for new motor fuel dispenser systems for UST systems located within 1,000 feet of a potable drinking water well or community water system, unless a state requires manufacturer and installer financial responsibility according to § 9003(i)(2) of the Solid Waste Disposal Act.
- Section 281.30(b)—eliminate flow restrictors for new or replaced overfill prevention.
- Section 281.30(c)—add notification for ownership changes.
- Section 281.31 and § 281.33(b) and (c)—delete upgrading requirements and eliminate phase-in schedule; add phase-in schedule for previously deferred UST systems.
- Section 281.32(e) and (f) and § 281.33(a)(3)—add periodic testing of spill and overfill prevention equipment, secondary containment areas, and mechanical and electronic components; and operation and maintenance walkthrough inspections, as well as maintaining associated records.
- Section 281.33(c)—limit use of monthly inventory control in combination with tank tightness testing conducted every five years for the first 10 years after the tank is installed or upgraded, if the tank was installed prior to a state receiving SPA.
- Section 281.33(e)—require hazardous substance USTs to only use secondary containment with interstitial monitoring.
- Section 281.34(a)(1)—add ''interstitial space may have been compromised'' to suspected releases.
- Section 281.37—eliminate phase-in requirement for financial responsibility.
- Section 281.39—require operator training according to § 9010 of the Solid Waste Disposal Act.
- Section 281.41(a)—require states to have delivery prohibition in accordance with § 9012 of the SWDA.
- Section 281.60—add requirement for the Administrator to initiate proceedings to withdraw program approval when an approved program fails to submit a revised application within three years of 40 CFR part 281 changes that require a program revision, which will follow the proceedings procedures from the 1988 SPA regulation.

EPA is not proposing to add the proposed compatibility requirement changes (see § 280.32) to 40 CFR part 281.

EPA is also proposing these technical changes to the SPA regulation.

- Section 281.10—change ''subpart'' to ''part''.
- Section 281.11(c), § 281.12(b)(2), § 281.20(d), § 281.21(a)(2), § 281.23, § 281.50(a), and formerly § 281.51—eliminate interim approval.
- Section 281.12(a)(2)—change ''Indian lands'' to ''Indian country''.
- Formerly § 281.32(e)—eliminate requirement to maintain upgrade records.
- Formerly § 281.38—eliminate reserved section for financial responsibility for USTs containing hazardous substances.
- Move § 281.39 to § 281.38—Lender Liability.
- Section 281.51, formerly § 281.52—add requirement for approved states to submit a revised application within three years of 40 CFR part 281 changes that require a program revision.
- Section 281.61—move § 281.60(b) to § 281.61(b)(2).

Why is EPA proposing this change? What background information is available about this change?

The 1988 SPA regulation in 40 CFR part 281 sets criteria state UST programs must meet to receive EPA's approval to operate in lieu of the federal UST program. The 1988 SPA regulation sets performance criteria states must meet to be considered no less stringent than the 1988 UST regulation (hereafter 40 CFR part 280) and provides requirements for states to have adequate enforcement. It also details the components of a SPA application.

EPA is proposing certain changes to the 1988 SPA regulation to make it consistent with today's proposed changes to the 1988 UST technical regulation. By doing so, EPA will require states to adopt UST technical regulation changes when final, in order to obtain or retain SPA. EPA is proposing to keep the general format of the 1988 SPA regulation. We are not proposing to make the SPA regulation as explicit or prescriptive as the UST technical regulation. Finally, EPA is proposing technical corrections and adding a deadline for state program revisions whenever EPA makes substantive changes to the SPA regulation.

Addressing Energy Policy Act Requirements and Proposed 40 CFR Part 280 Changes

How SPA Works

EPA's proposed UST technical regulation changes and Energy Policy Act requirements primarily impact the 1988 SPA regulation in 40 CFR part 281, Subpart C—Criteria for No Less Stringent. Thirty-six states, plus the District of Columbia and Puerto Rico, have state program approval and run their own underground storage tank programs in lieu of the federal program. To ensure these jurisdictions, and any other states or territories obtaining SPA, adopt the 40 CFR part 280 changes when final, EPA must update Subpart C. To continue providing states with flexibility and not disrupt current state programs, EPA is proposing to revise the SPA regulation to make it consistent with, but not identical to, the 40 CFR part 280 changes. Instead, EPA is proposing changes to the SPA regulation in a less prescriptive manner than in the changes in 40 CFR part 280. EPA decided to continue this successful approach to implement the UST SPA program.

The 1988 SPA regulation developed no less stringent criteria in the form of objectives.[73] EPA is continuing this format so that, taken as a whole, state programs will be no less stringent than the federal requirements, even though they may deviate slightly from what is explicitly required in 40 CFR part 280.

[73] **Federal Register**, Vol. 53, No. 185, September 23, 1988, page 37216.

For example, § 281.30 covers the no less stringent requirement for new UST system design, construction, and installation; it corresponds to § 280.20 of the UST technical regulation, but is much less explicit about requirements.

According to § 281.30 and to receive SPA, a state must require all new UST systems ''* * * [b]e designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion * * *''. In contrast, § 280.20 is much more explicit about how tank owners and operators ensure their tanks and piping prevent releases. It states what is required to prevent releases and provides codes of practice to comply. Although § 281.30 is less explicit, it nonetheless ensures owners and operators in approved states install UST systems that prevent releases and provides states flexibility in achieving that goal.

Proposed Goal Oriented Changes

EPA is proposing these goal oriented changes to Subpart C—Criteria for No Less Stringent. By the term ''goal oriented changes,'' EPA means changes in which states have some flexibility as to how they will meet the goals of the particular SPA regulation section. They reflect certain 40 CFR part 280 proposed changes.

- § 281.30(c)—add notification for ownership changes.
- § 281.31 and § 281.33(b)—add a phase-in schedule for upgrading previously deferred UST systems.
- § 281.32(e) and (f) and § 281.33(a)(3)—add periodic testing of spill and overfill prevention equipment, secondary containment areas, and mechanical and electronic components; and operation and maintenance walkthrough inspections, as well as maintaining associated records.

EPA's proposed ownership change notification requires anyone who assumes ownership of an UST system to notify the implementing agency within 30 days of assuming ownership and specifies what notification must include. Our proposed SPA regulation change in § 281.30(c) is much less prescriptive and indicates states require owners and operators to ''* * * adequately notify the implementing state agency within a reasonable timeframe when assuming ownership of an UST system using a form designated by the state agency.'' This provides states some flexibility in complying, including allowing them to continue relying on an annual tank registration program to meet this requirement. This is a reasonable way to ensure states know who owns USTs in their jurisdiction. EPA does not have an annual registration program, so we specify a timeframe in § 280.22 because we want to know who owns tanks in jurisdictions where we are the implementing agency.

In § 280.21, EPA is proposing that previously deferred wastewater treatment tank systems, airport hydrant fuel distribution systems, and UST systems with field-constructed tanks meet specific upgrade requirements. This is one way of achieving the goal states need to meet in § 281.31. In § 281.31, states will be required to ensure tanks are upgraded to prevent releases due to corrosion, spills, and overfills or be permanently closed. These more general requirements are sufficient for a state program to protect human health and the environment because they require UST systems to ''* * * prevent releases for their operating life * * *''. EPA finds it is also adequate to upgrade previously deferred systems to this standard.

Additionally, EPA is proposing previously deferred UST systems be upgraded within three years of a state submitting its SPA application for approval or revision. In the past, EPA experienced problems with requiring states to have a particular requirement by a certain date in order to receive SPA. States applying for SPA after a deadline passed often have difficulty implementing or obtaining a retroactive requirement. A retroactive or deadline leads to complications with little added benefit.

In today's proposal, EPA is adding various operation and maintenance requirements. In 40 CFR part 280, EPA is proposing specific frequencies and procedures for testing spill and overfill prevention equipment, secondary containment integrity testing, release detection equipment testing, and operation and maintenance walkthrough inspections. In § 281.32, EPA is proposing states require these tests in a manner and frequency that ensures proper functionality of equipment, includes proper operation and maintenance of the UST system, and prevents releases for the life of the equipment and UST system. This approach allows states who have these requirements, despite different frequencies or manners, to receive SPA, as long as their requirements sufficiently ensure properly functioning non-releasing UST systems. EPA is also proposing to update § 281.32(g) by adding these tests to the recordkeeping requirements of SPA.

Proposed Energy Policy Act Changes

In today's SPA regulation proposal, EPA is addressing Energy Policy Act requirements more generally than in today's UST technical regulation proposal, yet they are slightly different than the goal oriented approach above. The Energy Policy Act amends the Solid Waste Disposal Act and requires states that receive federal Subtitle I money to adopt operator training requirements, delivery prohibition, and additional measures to protect groundwater from contamination. In the additional measures to protect groundwater provision, states must meet either secondary containment and interstitial monitoring for new or replaced tanks and piping within 1,000 feet of a potable drinking water well or community water system, *or* manufacturer and installer financial responsibility and installer certification. The secondary containment requirement includes under-dispenser containment on any new motor fuel dispenser system within 1,000 feet of a potable drinking water well or community water system.

EPA developed guidelines for states to implement Energy Policy Act requirements; many states and territories implemented the Energy Policy Act requirements according to these guidelines. In order to establish similar requirements in Indian country and in states and territories that do not adopt Energy Policy Act requirements, EPA is adding secondary containment and operator training to today's 40 CFR part 280 proposal. In proposing those requirements, EPA does not want to supersede programs states developed to meet Energy Policy Act requirements. Requiring states to alter newly implemented provisions would be a disservice to them, as well as UST owners and operators. Therefore, EPA is proposing to address in today's SPA regulation proposal the secondary containment, manufacturer and installer financial responsibility and installer certification, delivery prohibition, and operator training requirements that appear in the Energy Policy Act. So, states already meeting these Energy Policy Act requirements need not change their programs to receive SPA.

EPA is proposing additional measures to protect groundwater and operator training requirements in Subpart C (§ 281.22(d)(3), § 281.30(a), § 281.33(c)(2), and § 281.39). Delivery prohibition is in Subpart D—Adequate Enforcement of Compliance (§ 281.41(a)). Because delivery prohibition is an enforcement tool, EPA is proposing to require states have authority to prohibit deliveries

according to Energy Policy Act, rather than make this a no less stringent requirement.

EPA is not proposing to add delivery prohibition to 40 CFR part 280 because delivery prohibition is primarily an enforcement tool for implementing agencies; it is not a requirement for owners and operators. Because the Energy Policy Act gives EPA clear delivery prohibition enforcement authority, we do not need to add delivery prohibition to the UST technical regulation. However, the only way to ensure states have that same authority is to require states to have authority to implement delivery prohibition as a prerequisite for SPA, as proposed in § 281.41(a).

Proposed Specific Changes

EPA is proposing specific changes below to Subpart C—Criteria for No Less Stringent. They reflect proposed 40 CFR part 280 changes. This specific approach is the only way for states to adopt this group of proposed changes. The goal of these proposed sections remains intact, yet the specific changes ensure states adopt the 40 CFR part 280 changes when final, and are able to receive SPA.

- § 281.30(b)—eliminate flow restrictors for new or replaced overfill prevention
- § 281.31—delete upgrading requirements
- § 281.33(c)—limit use of monthly inventory control in combination with tank tightness testing conducted every five years for the first 10 years after the tank is installed or upgraded, if the tank was installed prior to a state receiving SPA
- § 281.33(e)—require hazardous substance USTs to only use secondary containment with interstitial monitoring
- § 281.34(a)(1)—add ''* * * interstitial space may have been compromised * * *'' to suspected releases
- § 281.37—eliminate phase-in requirement for financial responsibility

EPA is proposing in § 281.30(b) states wishing to receive SPA not allow installation of flow restrictors (commonly referred to as ball floats) in vent lines for overfill protection. The existing goal of § 281.30(b) is for states to require that UST systems have spill and overfill prevention equipment. In the proposed language, EPA maintains the overall goal to prevent spills and overfills; however, owners and operators can no longer install ball floats to achieve that goal.

The deadlines for upgrades and for owners and operators to obtain financial responsibility have passed. As a result, EPA is proposing to eliminate these UST technical regulation deadlines in the SPA regulation. In § 281.31 and § 281.33(b), EPA is removing UST upgrades, except for previously deferred USTs. In § 281.37, we are eliminating the financial responsibility phase-in schedule. Please note EPA is proposing states allow upgrades prior to submitting their approval or revision applications for SPA, rather than only until December 22, 1998. EPA is taking this action due to states' previous problems with implementing a retroactive requirement when applying for SPA after the upgrade deadline.

In § 281.33(c), EPA is proposing monthly inventory control in combination with tank tightness testing conducted every five years for the first 10 years after a tank is installed or upgraded, only if a tank was installed prior to a state receiving SPA. This reflects a proposed change in 40 CFR part 280 and avoids another problem in the 1988 SPA regulation. First, EPA is proposing to eliminate this method. Second, EPA is proposing to tie the date for eliminating this method to a state's submission of its SPA application for approval or revision. As discussed earlier, EPA is taking the position that it is better to tie deadlines in the SPA regulation to states' submission of SPA applications, rather than specific dates.

In today's notice, EPA is proposing states wishing to receive SPA will no longer be able to allow installation of non-secondarily contained hazardous substance UST systems. This is consistent with EPA's proposed change in § 280.42(e); an equivalent and specific proposed change to the SPA regulation is the only way to ensure states adopt it. For consistency with proposed changes in the UST technical regulation and to ensure states wishing to receive SPA adopt this change, in § 281.34(a)(1), EPA is proposing to add ''* * * interstitial space may have been compromised * * *'' to suspected releases conditions.

Proposed UST Technical Regulation Changes Not Addressed in Proposed SPA Regulation

EPA is not proposing to address in the proposed SPA regulation (§ 281.32) the methods for determining compatibility. Today's proposed compatibility proposal in § 281.32 allows owners and operators to use any method for determining compatibility approved by an implementing agency, as long as the method is no less protective of human health and the environment. It is unnecessary to change the SPA regulation because the proposed UST technical regulation in § 281.32 will provide states with discretion to ensure compatibility. Also, the proposed UST technical regulation change delineates how owners and operators can demonstrate they are storing substances in UST systems made of or lined with materials that are compatible with the substances stored. This is more prescriptive than the general format of the SPA regulation, and thus is not appropriate for the SPA regulation.

Addressing SPA Revision Process

EPA is proposing to add a requirement for approved states to submit a revised application within three years of SPA regulation changes that require a program revision under § 281.51. Approved states are required to revise their programs and submit revised applications whenever the federal program changes or EPA's Administrator requests a revised application based on changes to a state's program. Given today's proposed significant changes, it is necessary to develop a timeframe which will ensure approved states meet SPA regulation changes in a reasonable time.

After discussions with states and reviews of other EPA programs, EPA is taking the position that three years is a reasonable time for approved states to submit revised applications resulting from SPA regulation changes. Also, EPA will work with states to ensure they meet this three-year deadline. EPA's proposed language in § 281.51 is intended only to require a state program revision within three years if EPA makes changes that necessitate state program changes. For instance, EPA changes to Subpart C—Criteria for No Less Stringent would likely require a state program revision, unless EPA is only making minor editorial changes.

While most states will be able to meet the three-year deadline for program revision, EPA is aware that some states may need additional time. EPA will notify states that have not revised their program within three years. EPA will ask those states to demonstrate their level of effort, show progress to date, and provide dates when they will achieve major milestones for revising their programs and submitting a revised application. EPA will consider these factors before initiating program approval withdrawal.

Additional Proposed Changes to SPA Regulation

EPA is proposing these additional SPA regulation changes; they are not a direct result of proposed 40 CFR part 280 changes. Rather, the majority are corrections to the 1988 SPA regulation.

- § 281.10—change ''subpart'' to ''part''
- § 281.11(c), § 281.12(b)(2), § 281.23, and formerly § 281.51—eliminate interim approval
- § 281.12(a)(2)—change ''Indian lands'' to ''Indian country''
- § 281.32(e)—eliminate requirement to maintain upgrade records
- Formerly § 281.38—eliminate reserved section for financial responsibility for USTs containing hazardous substances
- Move § 281.39 to § 281.38—Lender Liability
- § 281.61—move § 281.60(b) to § 281.61(b)(2)

The SPA regulation incorrectly uses the term subpart in § 281.10, and therefore EPA is proposing to correctly change this to part. EPA has been using the term Indian country instead of Indian lands for years. We are proposing to incorporate this term, which does not alter the meaning, in the SPA regulation. EPA is proposing to remove the reserved financial responsibility for USTs containing hazardous substances section (formerly § 281.38); move the lender liability section from § 281.39 to § 281.38; and include the new operator training section in § 281.39. Because operator training needs to be in subpart C, which has no remaining section numbers, this eliminates the need to renumber subpart D. Also, the reserved financial responsibility for hazardous substances section is unnecessary since there is no corresponding requirement in 40 CFR part 280.

EPA is proposing to delete the interim SPA approval language (in § 281.11(c) and § 281.51). In more than 20 years of the UST program, no state has sought interim approval; it is more beneficial to receive full approval all at once, rather than in steps. Also, because 36 states plus the District of Columbia and Puerto Rico have SPA, interim SPA approval is unnecessary at this time.

EPA is proposing to eliminate the requirement to maintain upgrade records for the operational life of an UST facility. This requirement in § 281.32(e) of the 1988 SPA regulation does not exist in 40 CFR part 280. In addition, EPA is proposing to no longer allow upgrades.

EPA is also proposing to move § 281.60(b) to § 281.61(b). This paragraph explains the procedure EPA will follow to withdraw approval. This paragraph is better suited for § 281.61, which explains the procedures for withdrawing approval, as opposed to § 281.60, which explains the criteria for withdrawal.

What issues related to this change does EPA request comment or additional data on?

EPA requests comments on:

- Is three years an appropriate timeframe for requiring a SPA state to submit a revised application? Please provide justification.
- Should EPA address the proposed procedures for determining compatibility of § 280.32 into the SPA regulation?

Please provide reasoning or justification if you disagree with or propose something different from EPA's proposal.

VI. Overview of Estimated Costs and Benefits

EPA prepared an analysis of the potential incremental costs and benefits associated with this action. This analysis is contained in the regulatory impact analysis (RIA) document titled *Assessment of the Potential Costs, Benefits, and Other Impacts of the Proposed Revisions to EPA's Underground Storage Tank Regulations,* which is available in the docket for this proposal. RIA estimated regulatory implementation and compliance costs, and benefits for three regulatory options as described above in section V, subsection F. On an annualized basis, the estimated regulatory compliance costs for the three options in today's proposed action are $210 million (Preferred Option), $520 million (Option 1), and $130 million (Option 2). Separately, this analysis assessed the potential benefits of the proposed regulation. As discussed in the RIA, a substantial portion of the beneficial impacts associated with the proposed regulation are avoided cleanup costs as a result of preventing releases and reducing the severity of releases. Today's action is expected to have annual cost savings related to avoided costs of $300–$740 million per year under the Preferred Option, $310–$770 million per year under Option 1, and $110–$590 million per year under Option 2.

We recognize that the estimated number of avoided releases and releases reduced in severity is based on expert judgment. Moreover, the cost savings estimates reflect cost data from only a small number of state programs (*e.g.,* such as New Hampshire). We solicit public input on the accuracy of the expected reduction in releases due to the proposed requirements provided by the experts, as well as remediation cost data for releases of different sizes and types. Please provide relevant data and studies on this topic. EPA solicits comment on the methodology and results from the RIA, as well as any data that the public feels would be useful in a revised analysis including specifically cost estimates for remediation and EPA's methods for estimating prevented releases under the proposed rule.

VII. Statutory and Executive Orders

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under section 3(f)(1) of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is an ''economically significant regulatory action'' because it is likely to have an annual effect on the economy of $100 million or more. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866 and EO 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 1360.11.

Today's proposed regulation contains mandatory information collection requirements. The labor burden and associated costs for these requirements are estimated in the ICR supporting statement for today's proposed action. The supporting statement identifies and estimates the burden for each of the changes to the regulations that include recordkeeping or reporting requirements. Proposed changes include: Adding secondary containment requirements for new and replaced tanks and piping; adding operator training requirements; adding periodic operation and maintenance requirements for UST systems; removing certain deferrals; adding new release prevention and detection technologies; and updating state program approval requirements to incorporate these new changes.

Based on the same data and cost calculations applied in the Regulatory Impact Assessment (RIA) for today's action, but using the burden estimations for ICRs, the ICR supporting statement estimates an average annual labor hour burden of 2.3 million hours and $135 million for the proposed regulation. One

time capital and hourly costs are included in these estimates based on a three year annualization period. Burden is defined at 5 CFR 1320.3(b). The total universe of respondents for this ICR is comprised of 223,558 facilities and 56 states and territories.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR Part 9.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, EPA has established a public docket for this rule, which includes this ICR, under Docket ID number EPA–HQ–UST–2011–0301. Submit any comments related to the ICR to EPA and OMB. See **ADDRESSES** section at the beginning of this notice for where to submit comments to EPA. Send comments to OMB at the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW., Washington, DC 20503, Attention: Desk Office for EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after November 18, 2011, a comment to OMB is best assured of having its full effect if OMB receives it by December 19, 2011. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, a small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of today's proposed regulation on small entities, EPA certifies that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this proposed rule are small businesses and small governmental jurisdictions. We have determined that at most 1 percent of potentially affected small firms in the retail motor fuel sector (NAICS 447) will experience an impact over 1 percent of revenues but less than 3 percent of revenues. No small firms have impacts above 3 percent of revenues. In addition, we estimate that no small governmental jurisdictions would be impacted at 1 percent or 3 percent of revenues. This certification is based on the small entities analysis contained in the RIA for today's proposal.

Although this proposed regulation will not have a significant economic impact on a substantial number of small entities, EPA nonetheless tried to reduce the impact of this regulation on the regulated community in general, which is primarily comprised of small businesses. EPA conducted extensive outreach in order to determine which changes to make to the 1988 regulations. EPA worked with representatives of owners and operators and reached out specifically to small businesses. In addition, EPA considered the impacts of each potential regulatory change and worked to limit changes that required retrofits, since changes requiring retrofits would place a high financial burden on small businesses. Finally, EPA maintained numerous options for compliance in order to provide small entities with as much flexibility as possible.

We continue to be interested in the potential impacts of the proposed rule on small entities and welcome comments on issues related to such impacts.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires Federal agencies, unless otherwise prohibited by law, to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. This rule contains a Federal mandate that may result in expenditures of $100 million or more for the private sector in any one year. Accordingly, EPA prepared under section 202 of the UMRA a written statement (an appendix to the RIA), which is summarized below.

As estimated in the RIA, on an annualized basis, the total estimated regulatory compliance costs for the three options in today's proposed action are $210 million (Preferred Option), $520 million (Option 1), and $130 million (Option 2). Of this amount, annualized costs to state/local governments total $9 million under the Preferred Option, $19 million under Option 1, and $6 million under Option 2. These costs consist of estimated regulatory compliance costs for state/local governments that currently own or operate UST systems and annualized costs of $120,000 for states to implement the proposed rule. EPA estimates total annualized costs to owners and operators of tribally owned UST systems are $0.7 million under the Preferred Option. The estimated annualized cost to the private sector range is approximately $180 million under the Preferred Option, $350 million under Option 1, and $120 million under Option 2. While the proposed regulation may result in expenditures of $100 million or more for the private sector, thereby triggering section 202 of the UMRA, this rule is not subject to the requirements of section 204 of UMRA because EPA does not believe state, local, and tribal governments will incur aggregate costs of over $100 million per year.

Consistent with section 205, EPA identified and considered a reasonable number of regulatory alternatives. Today's proposed regulation identifies a number of regulatory options, and the RIA estimates the annual cost across the three considered options may range between $130 million and $520 million. Section 205 of the UMRA requires federal agencies to select the least costly or most cost-effective regulatory alternative unless the Agency publishes with the final rule an explanation of why such alternative was not adopted. As discussed earlier in the preamble, as part of EPA's deliberative process for today's proposed rule, EPA considered and evaluated variations of a subset of the proposed requirements using two alternative options (Options 1 and 2). The preferred option provides the greatest difference between beneficial impact and costs of any of the options. The requirements proposed under the Preferred Option provide for greater protection of human health and the environment and better addresses stakeholder concerns, compared to the lower cost and proposed requirements of Option 2.

This rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in EO 13132. Under the proposed rule, total costs to all affected states and local governments (including direct compliance costs, notification costs, and state program costs) are approximately $9 million. This is not considered to be a substantial compliance cost under federalism requirements. Thus, EO 13132 does not apply to this action.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicits comment on this proposed action from State and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Subject to the Executive Order 13175 (65 FR 67249, November 9, 2000) EPA may not issue a regulation that has tribal implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by tribal governments, or EPA consults with tribal officials early in the process of developing the proposed regulation and develops a tribal summary impact statement.

EPA concluded that this action will have tribal implications to the extent that tribally-owned entities with UST systems on Indian country would be affected. However, it will neither impose substantial direct compliance costs on tribal governments, nor preempt tribal law. Total annualized costs for tribally-owned UST systems in Indian country are estimated to be $0.7 million.

EPA consulted with tribal officials early in the process of developing this proposed regulation to welcome meaningful and timely input into its development. EPA began its consultation with Tribes on possible changes to the UST regulation shortly after the passage of the Energy Policy Act of 2005. The Energy Policy Act directed EPA to coordinate with Tribes to develop and implement an UST program strategy in Indian country to supplement the program's existing approach. EPA and Tribes worked collaboratively to develop a tribal strategy.

There are certain key provisions of the Energy Policy Act that apply to states receiving federal Subtitle I money, but do not apply in Indian country. Nonetheless, EPA's goal is to establish in Indian country similar federal requirements to these Energy Policy Act provisions as an important step in achieving more consistent program results in release prevention. Both EPA and Tribes recognize the importance of having policies that can help ensure parity in program implementation between states and in Indian country.

In addition to our early consultation with Tribes, EPA also reached out again to Tribes as we started the official rulemaking process and throughout the development of this proposed regulation. EPA sent letters to leaders of over 500 Tribes as well as to Tribal regulatory staff to invite their participation in the development of the regulation. EPA heard from both Tribal officials who work as regulators as well as representatives of owners and operators of UST systems in Indian country. The Tribal regulators raised concerns about ensuring parity of environmental protection between states and Indian country.

EPA finds that today's proposed changes to the UST regulation are needed to ensure parity between UST systems in states and in Indian country. This regulation is also needed to ensure equipment is not just installed but is working properly to protect the environment from potential releases.

EPA specifically solicits additional comment on this proposed action from Tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health And Safety Risks

This action is not subject to EO 13045 (62 FR 19885, April 23, 1997) because the Agency does not believe the environmental health risks or safety risks addressed by this action present a disproportionate risk to children. EPA's risk assessment for this proposed rulemaking examines potential impacts to groundwater and subsequent chemical transport, exposure and risk. While the risk assessment did not specifically measure exposure to children, the general exposure scenarios reflect four exposure pathways that have the most significant potential for human health impacts. These are: (1) Ingestion of chemicals in groundwater that have migrated from the source area to residential drinking water wells; (2) inhalation of volatile chemicals when showering with contaminated groundwater; (3) dermal contact with chemicals while bathing or showering with contaminated groundwater; and (4) inhalation of vapors that may migrate upward from contaminated groundwater into overlying buildings.

Adults and children can potentially be exposed through all four exposure pathways considered. For adults, inhalation of vapors while showering is the most significant exposure pathway; for children, ingestion is the most significant pathway, because they are assumed to take baths and are, therefore, not exposed via shower vapor inhalation. As a result of the longer exposure from showering, adults are the more sensitive receptors for cancer effects compared to children, particularly those under five who are assumed to take more baths and fewer showers.[74]

While the screening level risk assessment is limited in that it only examines benzene impacts, the proposed rule would likely reduce other contaminant exposures to children in a similar pattern and would not create significant adverse impacts on children's health.

The screening level population analysis performed to examine EO 12898 shows that children under 18 years and children under five years are slightly less likely to be found in the vicinity of UST facilities. This suggests that the impacts of the proposed rule will not have a disproportionate impact on children's health. Moreover, because all regulatory options proposed today would increase regulatory stringency and reduce the number and size of releases, EPA does not expect the proposed regulation to have any disproportionate adverse impact on children. The public is invited to submit comments or identify peer-reviewed studies and data that assess effects of early life exposure to petroleum products.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The following summarizes EPA's assessment of the energy impacts that the proposed rulemaking will have on energy supply, distribution, and use.

[74] United States Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, ''Toxicological Profile for Polycyclic Aromatic Hydrocarbons,'' August 1995.

The proposed regulation consists of additional regulatory requirements that apply to the owners and operators of underground storage tanks. To the extent that the proposed regulation affects the motor fuel sector, it does so at the retail motor fuel sales level, rather than the level of refineries or distributors, who supply the retail stations with motor fuel. Therefore, we do not expect the proposed regulation to have a significant adverse impact on energy supply or distribution.

The additional regulatory requirements contained in the proposed regulation may increase compliance costs for owners and operators of retail motor fuel stations. If owners and operators of retail motor fuel stations affected by the proposed regulation can pass through their increased compliance costs, energy use may be affected via higher energy prices caused by the proposed regulation. However, we do not expect a significant change in retail gasoline prices to result from this proposed regulation for the following reasons: (1) Economic analyses of retail fuel prices have revealed that demand for gasoline is highly sensitive to price (elastic) within localized geographic areas. As a result, if one motor fuel retailer in an area passes through increases in compliance costs by increasing gasoline prices, while another does not, the one with higher prices is at a competitive disadvantage; and (2) retail motor fuel stations often have associated stores and/or services, such as car washes, repair operations, and convenience outlets, on which they can more successfully pass through increases in compliance costs.

Furthermore, when considered in the context of total fuel consumption in the United States, the proposed rule would represent only a very small fraction of motor fuel prices even if it was fully passed through to consumers. According to the Bureau of Transportation Statistics, the United States consumed approximately 171 billion gallons of motor fuel (including gasoline and diesel) in 2008 at an average price of $3.27.[75] This implies that U.S. consumers spent $558 billion in 2008 on motor fuel. The overall cost of the proposed regulation is approximately $210 million, less than one-tenth of 1 percent of the amount spent by end users on motor fuel in 2008. In comparison, an increase of 1 cent in the average price of motor fuel in 2008 would have increased the total cost to consumers by approximately $1.7 billion. Given these circumstances, the proposed regulations should not have a measurable impact on retail motor fuel prices. As a result, EPA does not expect the proposed regulations to have a significant adverse impact on energy prices or use.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed regulation involves technical standards. EPA is proposing to use voluntary consensus standards, called codes of practice identified in section E–2 of the preamble. These codes of practice meet the objectives of today's proposed regulation by establishing criteria for the design, construction, and maintenance of underground storage tanks.

EPA welcomes comments on this aspect of the proposed regulation and, specifically, invites the public to identify potentially applicable voluntary consensus standards and to explain why such standards should be used in this regulation.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

To inform us about the socioeconomic characteristics of communities potentially affected by the proposed regulation, EPA conducted a screening analysis to examine whether there is a statistically significant disparity between socioeconomic characteristics of populations located near UST facilities and those that are not.[76] As discussed in the RIA, the results indicate that minority and low-income populations are slightly more likely to be located near UST facilities. An environmental justice analysis would then require an assessment of whether there would be disproportionate and adverse impacts on these populations. However, because all regulatory options considered in this proposed regulation would increase regulatory stringency and reduce the number and size of releases, EPA does not anticipate the proposed regulation to have any disproportionately high and adverse human health or environmental effects on these minority or low-income communities or any community.

List of Subjects

40 CFR Part 280

Environmental protection, Administrative practice and procedures, Confidential business information, Groundwater, Hazardous materials, Petroleum, Reporting and recordkeeping requirements, Underground storage tanks, Water pollution control, Water supply.

40 CFR Part 281

Environmental protection, Administrative practice and procedures, Hazardous substances, Petroleum, State program approval, Underground storage tanks.

Dated: October 25, 2011.

Lisa P. Jackson,

Administrator.

For the reasons stated in the preamble, Title 40 Chapter I of Code of Federal Regulations is proposed to be amended as follows.

[75] The 2008 prices per gallon for all grades of retail motor gasoline and No. 2 diesel fuel (all concentrations of sulfur) were $3.32 and $3.15, respectively, as reported by the Bureau of Transportation Statistics in Table 3–8: Sales Price of Transportation Fuel to End-Users in National Transportation Statistics 2010 (at *http://www.bts.gov/publications/national_transportation_statistics/pdf/entire.pdf*). We weight these prices according to prime supplier sales volumes in 2009 published by the Energy Information Administration, which summed to 362,798.5 thousands of gallons per day for gasoline and 132,489.3 thousands of gallons per day for all grades of diesel fuel (at *http://www.eia.gov/dnav/pet/pet_cons_prim_dcu_nus_a.htm*).

[76] Note that the affected populations identified in the screening analysis summarized here are simply defined by specific demographics surrounding UST locations. These affected populations are not necessarily equivalent to communities that others have specifically identified as ''environmental justice communities.''

PART 280—TECHNICAL STANDARDS AND CORRECTIVE ACTION REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS (UST)

1. The authority citation for part 280 is revised to read as follows:

Authority: 42 U.S.C. 6912, 6991, 6991(a), 6991(b), 6991(c), 6991(d), 6991(e), 6991(f), 6991(g), 6991(h), 6991(i).

2. Revise § 280.10 to read as follows:

§ 280.10 Applicability.

(a) The requirements of this part apply to all owners and operators of an UST system as defined in § 280.12 except as otherwise provided in paragraphs (b) and (c) of this section.

(1) *Previously deferred UST systems.* UST systems previously deferred from subparts B, C, D, E, G and H (airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and wastewater treatment tank systems) and UST systems previously deferred from subpart D (UST systems that store fuel solely for use by emergency power generators) must begin meeting the requirements of this part as follows:

(i) UST systems installed on or before [effective date of rule] must meet the schedule in the following table.

Type of UST system	Subpart or Section	Effective date
UST systems that store fuel solely for use by emergency power generators.	D	[1 Year after effective date of rule].
Airport hydrant fuel distribution systems; UST systems with field-constructed tanks; and wastewater treatment tank systems.	B (except § 280.22) and C D § 280.22 of subpart B, E, G and H	[3 Years after effective date of rule]. See the phase in schedule in § 280.40(c). [effective date of rule].

(ii) UST systems installed after [effective date of rule] must meet all requirements at installation.

(2) Any UST system listed in paragraph (c) of this section must meet the requirements of § 280.11.

(b) The following UST systems are excluded from the requirements of this part:

(1) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or a mixture of such hazardous waste and other regulated substances.

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.

(3) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

(4) Any UST system whose capacity is 110 gallons or less.

(5) Any UST system that contains a *de minimis* concentration of regulated substances.

(6) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

(c) *Deferrals.* Subparts B, C, D, E, and G of this part do not apply to:

(1) Aboveground tanks associated with:

(i) Airport hydrant fuel distribution systems; and

(ii) UST systems with field-constructed tanks;

(2) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 USC 2011 and following); and

(3) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50.

3. In § 280.11 revise the Note at the end of the section to read as follows:

§ 280.11 Interim prohibition for deferred UST systems.

* * * * *

Note to paragraphs (a) and (b): The following codes of practice may be used as guidance for complying with this section:

(A) NACE International Recommended Practice RP 0285, ''Corrosion Control of Underground Storage Systems by Cathodic Protection'';

(B) NACE International Standard Practice SP 0169, ''Control of External Corrosion on Underground or Submerged Metallic Piping Systems'';

(C) American Petroleum Institute Recommended Practice 1632, ''Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems''; or

(D) Steel Tank Institute Recommended Practice R892, ''Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems''.

4. Section 280.12 is amended as follows:

a. By adding in alphabetical order definitions for ''Airport hydrant fuel distribution system,'' ''Class A operator,'' ''Class B operator,'' ''Class C operator,'' ''Dispenser system,'' ''Replaced,'' ''Secondary containment,'' ''Training program,'' and ''Under-dispenser containment,'' and

b. By revising the definitions for ''Motor fuel,'' ''Regulated substance,'' ''Repair,'' and ''Underground storage tank.''

§ 280.12 Definitions.

* * * * *

Airport hydrant fuel distribution system means an UST system that is a combination of one or more tanks directly connected to underground hydrant piping used to fuel aircraft. These systems do not have a dispenser at the end of the piping run, but rather have a hydrant (fill stand). If an aboveground storage tank (AST) is feeding an intermediary tank or tanks, this definition does not include the AST, but does include all underground piping entering and leaving the intermediary tank(s) and the intermediary tank(s). Intermediary tanks are those tanks directly connected to the hydrant piping.

* * * * *

Class A operator means the individual who has primary responsibility to operate and maintain the UST system in accordance with applicable requirements and standards established by the implementing agency. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.

Class B operator means the individual who has day-to-day responsibility for implementing applicable regulatory requirements and standards established by the implementing agency. The Class B operator typically implements in-field aspects of operation, maintenance, and associated recordkeeping for the UST system.

Class C operator means the employee responsible for initially addressing emergencies presented by a spill or release from an UST system. The Class C operator typically controls or monitors the dispensing or sale of regulated substances.

* * * * *

Dispenser system means equipment located aboveground that meters the amount of regulated substances transferred to a point of use outside the UST system, such as a motor vehicle.

This system includes the equipment necessary to connect the dispenser to the underground storage tank system.

* * * * *

Motor fuel means petroleum or a petroleum-based substance that is typically used in the operation of a motor engine, such as motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any blend containing one or more of these substances (for example: motor gasoline blended with alcohol).

* * * * *

Regulated substance means

(a) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C), and

(b) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). The term ''regulated substance'' includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

* * * * *

Repair means to restore a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component that has caused a release or a suspected release of product from the UST system or has failed to function properly.

Replaced means

(a) For a tank—to remove a tank and install another tank.

(b) For piping—to remove 50 percent or more of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies independently to each piping run.

* * * * *

Secondary containment or *Secondarily contained* means a release prevention and release detection system for a tank and/or piping. These systems have an inner and outer barrier with an interstitial space that is monitored for leaks.

* * * * *

Training program means any program established by the implementing agency that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator regarding requirements and standards for UST systems.

Under-dispenser containment or *UDC* means containment underneath a dispenser system designed to prevent dispenser system leaks from reaching soil or groundwater.

* * * * *

Underground storage tank or *UST* means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. This term does not include any:

(a) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

(b) Tank used for storing heating oil for consumptive use on the premises where stored;

(c) Septic tank;

(d) Pipeline facility (including gathering lines):

(1) Which is regulated under U.S.C. chapters 601 and 603, or

(2) Which is an intrastate pipeline facility regulated under state laws as provided in U.S.C. 49 chapters 601 and 603,and which is determined by the Secretary of Transportation to be connected to a pipeline, or to be operated or intended to be capable of operating at pipeline pressure, or as an integral part of a pipeline;

(e) Surface impoundment, pit, pond, or lagoon;

(f) Storm-water or wastewater collection system;

(g) Flow-through process tank;

(h) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(i) Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term *underground storage tank* or *UST* does not include any pipes connected to any tank which is described in paragraphs (a) through (i) of this definition.

* * * * *

5. Revise Subpart B to read as follows:

Subpart B—UST Systems: Design, Construction, Installation and Notification

Sec.
280.20 Performance standards for new UST systems.
280.21 Upgrading of existing UST systems.
280.22 Notification requirements.

Subpart B—UST Systems: Design, Construction, Installation and Notification

§ 280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements.

(a) *Tanks.* Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified in paragraphs (a)(1) through (a)(5) of this section. In addition, all new or replaced tanks where installation began after [effective date of rule] must be secondarily contained in accordance with paragraph (a)(6) of this section:

(1) The tank is constructed of fiberglass-reinforced plastic; or

Note to paragraph (a)(1): The following codes of practice may be used to comply with paragraph (a)(1) of this section:

(A) Underwriters Laboratories Standard 1316, ''Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures''; or

(B) Underwriter's Laboratories of Canada S615, ''Standard for Reinforced Plastic Underground Tanks for Flammable and Combustible Liquids''.

(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or according to guidelines established by the implementing agency; or

Note to paragraph (a)(2): The following codes of practice may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute Specification ''sti-P3® Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks'';

(B) Underwriters Laboratories Standard 1746, ''Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks'';

(C) Underwriters Laboratories of Canada S603, ''Standard for Steel Underground Tanks for Flammable and Combustible Liquids,'' and S603.1, ''Standard for External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids,'' and S631, ''Standard for Isolating Bushings for Steel Underground Tanks Protected with External Corrosion Protection Systems'';

(D) Steel Tank Institute Standard F841, ''Standard for Dual Wall Underground Steel Storage Tanks''; or

(E) NACE International Recommended Practice RP 0285, ''Corrosion Control of Underground Storage Systems by Cathodic Protection,'' and Underwriters Laboratories Standard 58, ''Standard for Steel Underground Tanks for Flammable and Combustible Liquids''.

(3) The tank is constructed of steel and clad or jacketed with a non-corrodible material; or

Note to paragraph (a)(3): The following codes of practice may be used to comply with paragraph (a)(3) of this section:

(A) Underwriters Laboratories Standard 1746, ''Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks'';

(B) Steel Tank Institute Specification F894, ''ACT–100® Specification for External Corrosion Protection of FRP Composite Steel USTs'';

(C) Steel Tank Institute Specification F961, ''ACT–100–U® Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks''; or

(D) Steel Tank Institute Specification F922, ''Steel Tank Institute Specification for Permatank®''.

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (a)(4)(i) of this section for the remaining life of the tank; or

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a)(1) through (4) of this section; or

(6) The tank is secondarily contained. Secondary containment must be periodically tested in accordance with § 280.36. Secondarily contained tanks must meet the following:

(i) Be able to contain regulated substances leaked from the primary containment until they are detected and removed; and

(ii) Be able to prevent the release of regulated substances to the environment at any time during the operational life of the UST system.

Note to paragraph (a)(6): The following codes of practice may be used to comply with paragraph (a)(6) of this section:

(A) Underwriters Laboratories Standard 58, ''Standard for Steel Underground Tanks for Flammable and Combustible Liquids'';

(B) Underwriters Laboratories Standard 1316, ''Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures'';

(C) Underwriters Laboratories Standard 1746, ''Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks'';

(D) Steel Tank Institute Standard F841, ''Standard for Dual Wall Underground Steel Storage Tanks''; or

(E) Steel Tank Institute Specification F922, ''Steel Tank Institute Specification for Permatank®''.

(b) *Piping.* The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified in paragraphs (b)(1) through (b)(4) of this section. In addition, except for suction piping that meets the requirements of 280.41(b)(1)(ii)(A) through (E) and piping associated with field-constructed tanks and airport hydrant fuel distribution systems, all new or replaced piping where installation began after [effective date of rule] must be secondarily contained in accordance with paragraph (b)(5) of this section. The entire piping run must be replaced when 50 percent or more of a piping run is replaced.

(1) The piping is constructed of a non-corrodible material; or

Note to paragraph (b)(1): The following codes of practice may be used to comply with paragraph (b)(1) of this section:

(A) Underwriters Laboratories Standard 971, ''Standard for Non-Metallic Underground Piping for Flammable Liquids''; or

(B) Underwriters Laboratories of Canada Standard S660, '' Standard for Non-Metallic Underground Piping for Flammable Liquids''.

(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in § 280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with § 280.31 or guidelines established by the implementing agency; or

Note to paragraph (b)(2): The following codes of practice may be used to comply with paragraph (b)(2) of this section:

(A) American Petroleum Institute Recommended Practice 1632, ''Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems'';

(B) Underwriters Laboratories Subject 971A, ''Outline of Investigation for Metallic Underground Fuel Pipe'';

(C) Steel Tank Institute Recommended Practice R892, ''Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Petroleum Storage and Dispensing Systems'';

(D) NACE International Standard Practice SP 0169, ''Control of External Corrosion on Underground or Submerged Metallic Piping Systems''; or

(E) NACE International Recommended Practice RP 0285, ''Corrosion Control of Underground Storage Systems by Cathodic Protection''.

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b)(1) through (3) of this section; or

(5) The piping is secondarily contained. Secondary containment must be periodically tested in accordance with § 280.36. Secondarily contained piping must meet the following:

(i) Be able to contain regulated substances leaked from the primary containment until they are detected and removed; and

(ii) Be able to prevent the release of regulated substances to the environment at any time during the operational life of the UST system.

Note to paragraph (b)(5): The following codes of practice may be used to comply with paragraph (b)(5) of this section:

(A) Underwriters Laboratories Standard 971, ''Standard for Non-Metallic Underground Piping for Flammable Liquids''; or

(B) Underwriters Laboratories Subject 971A, ''Outline of Investigation for Metallic Underground Fuel Pipe''.

(c) *Spill and overfill prevention equipment.*

(1) Except as provided in paragraphs (c)(2) and (c)(3) of this section, to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow 30 minutes prior to overfilling, alert the transfer operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1)(i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overfill prevention is installed or replaced after [effective date of rule].

(4) Spill and overfill prevention equipment must be periodically tested in accordance with § 280.35.

(d) *Installation.* All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

Note to paragraph (d): Tank and piping system installation practices and procedures described in the following codes of practice may be used to comply with the requirements of paragraph (d) of this section:

(A) American Petroleum Institute Publication 1615, ''Installation of Underground Petroleum Storage System''; (B) Petroleum Equipment Institute Publication RP100, ''Recommended Practices for Installation of Underground Liquid Storage Systems''; or

(C) National Fire Protection Association Standard 30, ''Flammable and Combustible Liquids Code'' and Standard 30A, ''Code for Motor Fuel Dispensing Facilities and Repair Garages''.

(e) *Certification of installation.* All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with § 280.22.

(1) The installer has been certified by the tank and piping manufacturers; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or

(4) The installation has been inspected and approved by the implementing agency; or

(5) All work listed in the manufacturer's installation checklists has been completed; or

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

(f) *Dispenser Systems.* Each UST system must be equipped with under-dispenser containment for any new dispenser system installed.

(1) A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an UST facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are beneath the dispenser and connect the dispenser to the underground piping.

(2) Under-dispenser containment must be liquid-tight on its sides, bottom, and at any penetrations. Under-dispenser containment must allow for visual inspection and access to the components in the containment system or be continuously monitored for leaks from the dispenser system.

§ 280.21 Upgrading of existing UST systems.

In accordance with subpart G of this part, owners and operators must permanently close any UST system that does not meet the new UST system performance standards in § 280.20 or has not been upgraded in accordance with paragraphs (b) through (d) of this section. This does not apply to previously deferred UST systems described in paragraph (e) of this section and where an upgrade is determined to be appropriate by the implementing agency.

(a) *Alternatives allowed.* All existing UST systems must comply with one of the following requirements:

(1) New UST system performance standards under § 280.20;

(2) The upgrading requirements in paragraphs (b) through (d) of this section; or

(3) Closure requirements under subpart G of this part, including applicable requirements for corrective action under subpart F.

(b) *Tank upgrading requirements.* Steel tanks must be upgraded to meet one of the following requirements in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory:

(1) *Interior lining.* Tanks upgraded by internal lining must meet the following:

(i) The lining was installed in accordance with the requirements of § 280.33, and

(ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally inspected and found to be structurally sound with the lining still performing in accordance with original design specifications. If the internal lining is no longer performing in accordance with original design specifications and cannot be repaired in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory, then the lined tank must be permanently closed in accordance with subpart G of this part.

(2) *Cathodic protection.* Tanks upgraded by cathodic protection must meet the requirements of § 280.20(a)(2)(ii), (iii), and (iv) and the integrity of the tank must have been ensured using one of the following methods:

(i) The tank was internally inspected and assessed to ensure that the tank was structurally sound and free of corrosion holes prior to installing the cathodic protection system; or

(ii) The tank had been installed for less than 10 years and is monitored

monthly for releases in accordance with § 280.43(d) through (i); or

(iii) The tank had been installed for less than 10 years and was assessed for corrosion holes by conducting two tightness tests that meet the requirements of § 280.43(c). The first tightness test must have been conducted prior to installing the cathodic protection system. The second tightness test must have been conducted between three and six months following the first operation of the cathodic protection system; or

(iv) The tank was assessed for corrosion holes by a method that is determined by the implementing agency to prevent releases in a manner that is no less protective of human health and the environment than paragraphs (b)(2)(i) through (iii) of this section.

(3) *Internal lining combined with cathodic protection.* Tanks upgraded by both internal lining and cathodic protection must meet the following:

(i) The lining was installed in accordance with the requirements of § 280.33; and

(ii) The cathodic protection system meets the requirements of § 280.20(a)(2)(ii), (iii), and (iv).

Note to paragraph (b): The following historical codes of practice were listed as options for complying with paragraph (b) of this section:

(A) American Petroleum Institute Publication 1631, ''Recommended Practice for the Interior Lining of Existing Steel Underground Storage Tanks'';

(B) National Leak Prevention Association Standard 631, ''Spill Prevention, Minimum 10 Year Life Extension of Existing Steel Underground Tanks by Lining Without the Addition of Cathodic Protection'';

(C) National Association of Corrosion Engineers Standard RP–02–85, ''Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems''; and

(D) American Petroleum Institute Publication 1632, ''Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems''.

Note to paragraph (b)(1)(ii): The following codes of practice may be used to comply with the periodic lining inspection requirement of this section:

(A) American Petroleum Institute Recommended Practice 1631, ''Interior Lining and Periodic Inspection of Underground Storage Tanks'';

(B) National Leak Prevention Association Standard 631, ''Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks''; or

(C) Ken Wilcox Associates Recommended Practice, ''Recommended Practice for Inspecting Buried Lined Steel Tanks Using a Video Camera''.

(c) *Piping upgrading requirements.* Metal piping that routinely contains regulated substances and is in contact with the ground must be cathodically protected in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and must meet the requirements of § 280.20(b)(2)(ii), (iii), and (iv).

Note to paragraph (c): The codes of practice listed in the note following § 280.20(b)(2) may be used to comply with this requirement.

(d) *Spill and overfill prevention equipment.* To prevent spilling and overfilling associated with product transfer to the UST system, all existing UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in § 280.20(c).

(e) *Upgrade requirements for previously deferred UST systems.* Previously deferred wastewater treatment tank systems, airport hydrant fuel distribution systems, and UST systems with field-constructed tanks where installation commenced on or before [effective date of rule] must meet the following requirements according to the time table in subpart A or be permanently closed pursuant to subpart G of this part.

(1) *Corrosion protection.* UST system components in contact with the ground that routinely contain regulated substances must meet one of the following:

(i) The new UST system performance standards for tanks at § 280.20(a) and for piping at § 280.20(b); or

(ii) Be constructed of metal and cathodically protected according to a code of practice developed by a nationally recognized association or independent testing laboratory and meets the following:

(A) Cathodic protection must meet the requirements of § 280.20(a)(2)(ii), (iii) and (iv) for tanks, and § 280.20(b)(2)(ii), (iii), and (iv) for piping.

(B) Tanks greater than 10 years old without cathodic protection must be assessed to ensure the tank is structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method determined by the implementing agency to adequately assess the tank for structural soundness and corrosion holes.

Note to paragraph (e): The following codes of practice may be used to comply with this paragraph:

(A) NACE International Recommended Practice RP 0285, ''Control of Underground Storage Tank Systems by Cathodic Protection'';

(B) NACE International Standard Practice SP 0169, ''Control of External Corrosion on Underground or Submerged Metallic Piping Systems'';

(C) National Leak Prevention Association Standard 631, ''Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks''; or

(D) American Society for Testing and Materials Standard G158, ''Standard Guide for Three Methods of Assessing Buried Steel Tanks''.

(2) *Spill and overfill prevention equipment.* To prevent spilling and overfilling associated with product transfer to the UST system, all previously deferred UST systems must comply with new UST system spill and overfill prevention equipment requirements specified in § 280.20(c).

§ 280.22 Notification requirements.

(a) After May 8, 1986, an owner must submit notice of a tank system's existence to the implementing agency within 30 days of bringing the underground storage tank system into use. Owners must use the form in Appendix I of this part.

Note to paragraph (a): Owners and operators of UST systems that were in the ground on or after May 8, 1986, unless taken out of operation on or before January 1, 1974, were required to notify the designated state or local agency in accordance with the Hazardous and Solid Waste Amendments of 1984, Public Law 98–616, on a form published by EPA on November 8, 1985 (50 FR 46602) unless notice was given pursuant to section 103(c) of CERCLA. Owners and operators who have not complied with the notification requirements may use portions I through VI of the notification form contained in Appendix I of this part.

(b) Within 30 days of acquisition, any person who assumes ownership of a regulated underground storage tank system, except as described in paragraph (a) of this section, must submit a notice of the ownership change to the implementing agency, using the form in Appendix II of this part.

(c) In states where state law, regulations, or procedures require owners to use forms that differ from those set forth in Appendix I and Appendix II of this part to fulfill the requirements of this section, the state forms may be submitted in lieu of the forms set forth in Appendix I and Appendix II of this part. If a state requires that its form be used in lieu of the form presented in Appendix I and Appendix II of this part, such form must, at a minimum, collect the information prescribed in Appendix I and Appendix II of this part.

(d) Owners required to submit notices under paragraph (a) or (b) of this section must provide notices to the appropriate

implementing agency for each tank they own. Owners may provide notice for several tanks using one notification form, but owners who own tanks located at more than one place of operation must file a separate notification form for each separate place of operation.

(e) All owners and operators of new UST systems must certify in the notification form compliance with the following requirements:

(1) Installation of tanks and piping under § 280.20(e);

(2) Cathodic protection of steel tanks and piping under § 280.20(a) and (b);

(3) Financial responsibility under subpart H of this part; and

(4) Release detection under §§ 280.41 and 280.42.

(f) All owners and operators of new UST systems must ensure that the installer certifies in the notification form that the methods used to install the tanks and piping complies with the requirements in § 280.20(d).

(g) Beginning October 24, 1988, any person who sells a tank intended to be used as an underground storage tank must notify the purchaser of such tank of the owner's notification obligations under paragraph (a) of this section. The statement provided in Appendix III of this part, when used on shipping tickets and invoices, may be used to comply with this requirement.

(h) Within 30 days of [Effective date of rule], all owners of previously deferred UST systems must submit a notice of tank system existence to the implementing agency, using the form in Appendix I of this part.

6. In § 280.30 revise the Note to read as follows:

§ 280.30 Spill and overfill control.

* * * * *

Note: The transfer procedures described in National Fire Protection Association Standard 385, ''Standard for Tank Vehicles for Flammable and Combustible Liquids'' or American Petroleum Institute Recommended Practice 1007, ''Loading and Unloading of MC 306/DOT 406 Cargo Tank Motor Vehicles'' may be used to comply with paragraph (a) of this section. Further guidance on spill and overfill prevention appears in American Petroleum Institute Recommended Practice 1621, ''Bulk Liquid Stock Control at Retail Outlets''.

* * * * *

7. In § 280.31 revise the introductory text and the Note to read as follows:

§ 280.31 Operation and maintenance of corrosion protection.

All owners and operators of metal UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71:

* * * * *

Note to paragraph (b): The following codes of practice may be used to comply with paragraph (b) of this section:

(A) NACE International Test Method TM 0101, ''Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Tank Systems'';

(B) NACE International Test Method TM0497, ''Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping Systems'';

(C) Steel Tank Institute Recommended Practice R051, ''Cathodic Protection Testing Procedures for sti-P3 USTs'';

(D) NACE International Recommended Practice RP 0285, ''Control of Underground Storage Tank Systems by Cathodic Protection''; or

(E) NACE International Standard Practice SP 0169, ''Control of External Corrosion on Underground or Submerged Metallic Piping Systems''.

* * * * *

8. Amend § 280.32 to revise paragraph (a) and to add paragraphs (b) and (c) to read as follows:

§ 280.32 Compatibility.

* * * * *

(a) Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

(b) Owners and operators storing any regulated substance containing greater than 10 percent ethanol or greater than 20 percent biodiesel, or any other regulated substance identified by the implementing agency, must use one or more of the following methods to demonstrate UST system compatibility with these regulated substances:

(1) Certification or listing of UST system components by a nationally recognized, independent testing laboratory for use with the regulated substance stored;

(2) Equipment or component manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility, specify the range of biofuel blends the component is compatible with, and be from the equipment or component manufacturer; or

(3) Another method determined by the implementing agency to be no less protective of human health and the environment than the methods listed in paragraphs (b)(1) or (b)(2) of this section.

(c) Owners and operators must maintain the following records (in accordance with § 280.34) for the life of the equipment or component:

(1) Documentation of compliance with paragraph (b) of this section, as applicable; and

(2) Records of all equipment or components installed or replaced after [effective date of rule]. At a minimum, each record must include the date of installation or replacement, manufacturer, and model.

9. Revise § 280.33 to read as follows:

§ 280.33 Repairs allowed.

Owners and operators of UST systems must ensure that repairs will prevent releases due to structural failure or corrosion as long as the UST system is used to store regulated substances. The repairs must meet the following requirements:

(a) Repairs to UST systems must be properly conducted in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

Note to paragraph (a): The following codes of practice may be used to comply with paragraph (a) of this section:

(A) National Fire Protection Association Standard 30, ''Flammable and Combustible Liquids Code'';

(B) American Petroleum Institute Recommended Practice RP 2200, ''Repairing Crude Oil, Liquified Petroleum Gas, and Product Pipelines'';

(C) American Petroleum Institute Recommended Practice RP 1631, ''Interior Lining and Periodic Inspection of Underground Storage Tanks'';

(D) National Fire Protection Association Standard 326, ''Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair'';

(E) National Leak Prevention Association Standard 631, ''Entry, Cleaning, Interior Inspection, Repair, and Lining of Underground Storage Tanks'';

(F) Steel Tank Institute Recommended Practice R972, ''Recommended Practice for the Addition of Supplemental Anodes to sti-P3® Tanks'';

(G) NACE International Recommended Practice RP 0285, ''Control of Underground Storage Tank Systems by Cathodic Protection''; or

(H) Fiberglass Tank and Pipe Institute Recommended Practice T–95–02, ''Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks''.

(b) Repairs to fiberglass-reinforced plastic tanks may be made by the manufacturer's authorized representatives or in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory.

(c) Metal pipe sections and fittings that have released product as a result of corrosion or other damage must be

replaced. Non-corrodible pipes and fittings may be repaired in accordance with the manufacturer's specifications.

(d) Repaired tanks and piping must be tightness tested in accordance with § 280.43(c) and § 280.44(b) within 30 days following the date of the completion of the repair except as provided in paragraphs (d)(1) through (4), of this section:

(1) The repaired tank is internally inspected in accordance with a code of practice developed by a nationally recognized association or an independent testing laboratory; or

(2) The repaired portion of the UST system is monitored monthly for releases in accordance with a method specified in § 280.43(d) through (i);

(3) UST systems with secondary containment must be tested as specified in § 280.36 within 30 days following the completion of any repair. Tanks using interstitial sensors must be tested using a vacuum, pressure, or liquid method in accordance with one of the criteria listed in § 280.36(a)(1)(ii) following any repair; or

(4) Another test method is used that is determined by the implementing agency to be no less protective of human health and the environment than those listed above.

(e) Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with § 280.31(b) and (c) to ensure that it is operating properly.

(f) Within 30 days following any repair to spill or overfill prevention equipment, the repaired spill or overfill prevention equipment must be tested in accordance with § 280.35 to ensure it is operating properly.

(g) UST system owners and operators must maintain records (in accordance with § 280.34) of each repair until the UST system is permanently closed or undergoes a change-in-service pursuant to § 280.71.

10. Revise § 280.34 to read as follows:

§ 280.34 Reporting and recordkeeping.

Owners and operators of UST systems must cooperate fully with inspections, monitoring and testing conducted by the implementing agency, as well as requests for document submission, testing, and monitoring by the owner or operator pursuant to section 9005 of Subtitle I of the Solid Waste Disposal Act, as amended.

(a) *Reporting.* Owners and operators must submit the following information to the implementing agency:

(1) Notification for all UST systems (§ 280.22), which includes certification of installation for new UST systems (§ 280.20(e)) and notification when any person assumes ownership of an UST system (§ 280.22(b));

(2) Reports of all releases including suspected releases (§ 280.50), spills and overfills (§ 280.53), and confirmed releases (§ 280.61);

(3) Corrective actions planned or taken including initial abatement measures (§ 280.62), initial site characterization (§ 280.63), free product removal (§ 280.64), investigation of soil and ground-water cleanup (§ 280.65), and corrective action plan (§ 280.66); and

(4) A notification before permanent closure or change-in-service (§ 280.71).

(b) *Recordkeeping.* Owners and operators must maintain the following information:

(1) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used (§ 280.20(a)(4); § 280.20(b)(3)).

(2) Documentation of operation of corrosion protection equipment (§ 280.31(d));

(3) Documentation of compatibility for UST systems (§ 280.32(c));

(4) Records for all UST system equipment installed or replaced after [effective date of rule] (§ 280.32(c));

(5) Documentation of UST system repairs (§ 280.33(g));

(6) Documentation of compliance for spill and overfill prevention equipment (§ 280.35(c));

(7) Documentation of compliance for tanks, piping, and containment sumps using interstitial monitoring (§ 280.36(c));

(8) Documentation of periodic walkthrough inspections (§ 280.37(b));

(9) Recent compliance with release detection requirements (§ 280.45);

(10) Results of the site investigation conducted at permanent closure (§ 280.74); and

(11) Documentation of operator training (§ 280.245).

(c) *Availability and Maintenance of Records.* Owners and operators must keep the records required either:

(1) At the UST site and immediately available for inspection by the implementing agency; or

(2) At a readily available alternative site and be provided for inspection to the implementing agency upon request.

(3) In the case of permanent closure records required under § 280.74, owners and operators are also provided with the additional alternative of mailing closure records to the implementing agency if they cannot be kept at the site or an alternative site as indicated above.

11. Add § 280.35 to Subpart C to read as follows:

§ 280.35 Periodic testing of spill and overfill prevention equipment.

(a) Owners and operators of UST systems with spill and overfill prevention equipment must meet the following requirements to ensure the equipment is operating properly and will prevent releases to the environment:

(1) Spill prevention equipment (such as a catchment basin, spill bucket, or other spill containment device) must prevent releases to the environment by meeting one of the following:

(i) The spill prevention equipment has two walls and the space between the walls is monitored continuously to ensure the integrity of the inner and outer walls is maintained; or

(ii) The spill prevention equipment is tested at installation and at least once every 12 months to ensure the spill prevention equipment is liquid tight by using vacuum, pressure, or liquid testing in accordance with one of the following criteria:

(A) Requirements developed by the manufacturer (*Note:* Owners and operators may use this option only if the manufacturer has developed testing requirements);

(B) Code of practice developed by a nationally recognized association or independent testing laboratory; or

(C) Requirements determined by the implementing agency to be no less protective of human health and the environment than the requirements listed in paragraphs (a)(1)(ii)(A) and (B) of this section; and

(2) Overfill prevention equipment must be tested at installation and at least once every three years. At a minimum, testing must ensure that overfill prevention equipment is set to activate at the correct level specified in § 280.20(c) and will activate when regulated substance reaches that level. Testing must be conducted in accordance with one of the criteria in paragraph (a)(1)(ii) of this section.

(b) Owners and operators must begin meeting these requirements as follows:

(1) For UST systems in use on or before [Effective date of rule]:

(i) Not later than [One year after effective date of rule] for spill prevention equipment; and

(ii) For overfill prevention equipment, not later than the phase-in schedule in the following table:

PHASE-IN SCHEDULE FOR OVERFILL PREVENTION EQUIPMENT TESTING

Criteria	Date by which first test must be conducted
One or more USTs at the facility were installed on or before 12/22/1988	[1 year after effective date of rule].
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	[2 years after effective date of rule].
All USTs at the facility were installed after 12/22/1998	[3 years after effective date of rule].

(2) For UST systems brought into use after [Effective date of rule], these requirements apply at installation.

(c) Owners and operators must maintain the following records (in accordance with § 280.34) for spill and overfill prevention equipment:

(1) All records of spill prevention equipment testing and overfill prevention equipment testing must be maintained for three years; and

(2) For spill prevention equipment not tested every 12 months, documentation showing that the spill prevention equipment has two walls and is monitored continuously. Owners and operators must maintain this documentation for as long as the spill prevention equipment is monitored continuously, and for three additional years after continuous monitoring ends.

12. Add § 280.36 to Subpart C to read as follows:

§ 280.36 Periodic testing of secondary containment.

(a) Owners and operators of UST systems with secondary containment using interstitial monitoring must ensure the integrity of all interstitial areas (including all containment sumps used for interstitial monitoring).

(1) Tanks must meet one of the following:

(i) The interstitial space is continuously monitored; or

(ii) The interstitial space is not continuously monitored and the integrity of the interstitial space is ensured at least once every three years by using vacuum, pressure, or liquid testing in accordance with one of the following criteria:

(A) Requirements developed by the manufacturer (*Note:* Owners and operators may use this option only if the manufacturer has developed integrity testing requirements);

(B) Code of practice developed by a nationally recognized association or independent testing laboratory; or

(C) Requirements determined by the implementing agency to be no less protective of human health and the environment than the requirements listed in paragraphs (a)(1)(ii)(A) and (B) of this section;

(2) Piping must meet one of the following:

(i) The interstitial space is continuously monitored using vacuum, pressure, or a liquid-filled interstitial space; or

(ii) The interstitial space is monitored using an interstitial monitoring method not listed in paragraph (a)(2)(i) of this section and the integrity of the interstitial space is ensured at least once every three years by using vacuum, pressure, or liquid testing in accordance with one of the criteria listed in paragraph (a)(1)(ii) of this section; and

(3) Containment sumps must meet one of the following:

(i) The containment sump has two walls and the space between the walls is continuously monitored; or

(ii) The containment sump is tested at least every three years to ensure the containment sump is liquid tight by using vacuum, pressure, or liquid testing in accordance with one of the criteria listed in paragraph (a)(1)(ii) of this section.

Note to paragraphs (a)(1)(ii), (a)(2)(ii), and (a)(3)(ii): The following codes of practice may be used to comply with paragraphs (a)(1)(ii), (a)(2)(ii), and (a)(3)(ii) of this section:

(A) Steel Tank Institute Recommended Practice R012, ''Recommended Practice for Interstitial Tightness Testing of Existing Underground Double Wall Steel Tanks''; or

(B) Fiberglass Tank and Pipe Institute Protocol, ''Field Test Protocol for Testing the Annular Space of Installed Underground Fiberglass Double and Triple-Wall Tanks with Dry Annular Space''.

(b) Owners and operators of UST systems using interstitial monitoring must begin meeting this requirement as follows:

(1) For UST systems in use on or before [Effective date of rule], not later than the phase-in schedule in the following table:

PHASE-IN SCHEDULE FOR INTERSTITIAL AREA TESTING

Criteria	Date by which first test must be conducted
One or more USTs at the facility were installed on or before 12/22/1988	[1 year after effective date of rule].
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	[2 years after effective date of rule].
All USTs at the facility were installed after 12/22/1998	[3 years after effective date of rule].

(2) For UST systems brought into use after [Effective date of rule], these requirements apply at installation.

(c) Owners and operators must maintain the following records (in accordance with § 280.34) for the time frames indicated for each tank, piping, and containment sump that uses interstitial monitoring:

(1) Records of interstitial space testing must be maintained for three years; or

(2) As appropriate, records demonstrating: the tank is using continuous interstitial monitoring; the piping is using continuous interstitial monitoring with vacuum, pressure, liquid-filled interstitial space; and the containment sump has two walls and uses continuous interstitial monitoring. Owners and operators must maintain these records for as long as the tank, piping, or containment sump uses one of these continuous methods of interstitial monitoring, and for three additional years after continuous monitoring ends.

13. Add § 280.37 to Subpart C to read as follows:

§ 280.37 Periodic operation and maintenance walkthrough inspections.

(a) To properly operate and maintain UST systems, owners and operators must meet one of the following:

(1) Conduct a walkthrough inspection at least once every 30 days that, at a minimum and as appropriate to the facility, checks the following equipment as specified:

(i) Spill prevention equipment—open and visually check for any damage; remove any liquid or debris; check each fill cap to make sure it is securely on the fill pipe; and for spill prevention equipment with continuous interstitial monitoring, check for a leak in the interstitial area,

(ii) Sumps—open and visually check for any damage, leaks to the containment area, or releases to the environment; remove any liquid (in contained sumps) or debris; and for sumps with continuous interstitial monitoring, check for a leak in the interstitial area,

(iii) Dispenser cabinets—open and visually check for any damage, leaks to the containment area, or releases to the environment; remove any liquid (in dispensers with under-dispenser containment) or debris; and for under-dispenser containment with continuous interstitial monitoring, check for a leak in the interstitial area,

(iv) Monitoring/observation wells—check covers to make sure they are secured,

(v) Cathodic protection—check to make sure impressed current cathodic protection rectifiers are on and operating; and ensure records of three year cathodic protection testing and 60 day impressed current system inspections are reviewed and current, and

(vi) Release detection systems—check to make sure the release detection system is on and operating with no alarms or other unusual operating conditions present; check any devices such as tank gauge sticks, groundwater bailers, and hand-held vapor monitoring devices for operability and serviceability; and ensure records of release detection testing are reviewed monthly and current; or

(2) Conduct operation and maintenance walkthrough inspections at least once every 30 days according to a standard code of practice developed by a nationally recognized association or independent testing laboratory that are comparable to (a)(1) of this section; or

(3) Conduct operation and maintenance walkthrough inspections developed by the implementing agency that are comparable to paragraph (a)(1) of this section.

(b) Owners and operators must maintain records (in accordance with § 280.34) of operation and maintenance walkthrough inspections for one year. The record must include a listing of each area checked, whether each area checked was acceptable or needed to have any action taken, and a description of any actions taken to correct an issue.

Note to paragraph (a)(2): The following code of practice may be used to comply with paragraph (a)(2) of this section:

(A) Petroleum Equipment Institute Recommended Practice RP 900, ''Recommended Practices for the Inspection and Maintenance of UST Systems''.

14. Revise Subpart D to read as follows:

Subpart D—Release Detection

Sec.
280.40 General requirements for all UST systems.
280.41 Requirements for petroleum UST systems.
280.42 Requirements for hazardous substance UST systems.
280.43 Methods of release detection for tanks.
280.44 Methods of release detection for piping.
280.45 Release detection recordkeeping.
280.46 Alternative methods of release detection for field-constructed tanks.
280.47 Alternative methods of release detection for bulk piping.

Subpart D—Release Detection

§ 280.40 General requirements for all UST systems.

(a) Owners and operators of UST systems must provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;

(2) Is installed and calibrated in accordance with the manufacturer's instructions;

(3) Beginning on [One year after effective date of rule], is operated and maintained, and electronic and mechanical components are tested for proper operation, in accordance with one of the following: Manufacturer's instructions; a code of practice developed by a nationally recognized association or independent testing laboratory; or requirements developed by the implementing agency. A test of the proper operation must be performed at least annually and, at a minimum and as applicable to the facility, cover the following components and criteria:

(i) Automatic tank gauge and other controllers: Test alarm; verify system configuration; test battery backup;

(ii) Probes and sensors: Inspect for residual buildup, ensure floats move freely; ensure shaft is not damaged; ensure cables are free of kinks, bends, and breaks; test alarm operability and communication with controller;

(iii) Line leak detector: Test operation to meet criteria in § 280.44(a) by simulating a leak; inspect leak sensing o-ring; and

(iv) Vacuum pumps and pressure gauges: Ensure proper communication with sensors and controller.

(4) Meets the performance requirements in § 280.43, § 280.44, § 280.46, or § 280.47, as applicable, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, the methods listed in § 280.43(b); § 280.43(c); § 280.43(d); § 280.43(h); § 280.43(i);§ 280.44(a); § 280.44(b); § 280.46; and § 280.47, must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of the rule with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(b) When a release detection method operated in accordance with the performance standards in § 280.43, § 280.44, § 280.46, or § 280.47 indicates a release may have occurred, owners and operators must notify the implementing agency in accordance with subpart E.

(c) Owners and operators of Airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and wastewater treatment tank systems must comply with the release detection requirements of this Subpart according to the following table:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION FOR AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND WASTEWATER TREATMENT TANK SYSTEMS

Type of UST system	Time frame (after [effective date of rule])	Description of requirement
Bulk piping associated with airport hydrant fuel distribution systems and field-constructed tanks using § 280.47(a) for piping release detection.	Within three years ..... Between years three and six	Conduct one bulk piping tightness test according to § 280.47(a) using the maximum detectable leak rates for semiannual testing. For bulk piping segments not capable of meeting the up to 3.0 gallon per hour leak rate, owners and operators may use a leak rate of up to 6.0 gallons per hour.
	Between years six and seven	Conduct one bulk piping tightness test according to § 280.47(a) using the maximum detectable leak rates for semiannual testing.
	After year seven	Conduct bulk piping tightness testing according to § 280.47(a).
Bulk piping associated with airport hydrant fuel distribution systems and field-constructed tanks not using § 280.47(a) for piping release detection.	Within three years	Perform release detection according to this subpart.
Underground tanks associated with hydrant fuel distribution systems and field-constructed tanks.	Within three years	Perform release detection according to this subpart.
Wastewater treatment tank systems	Within three years	Perform release detection according to this subpart.

(d) Any UST system that cannot apply a method of release detection that complies with the requirements of this subpart must complete the closure procedures in subpart G. For previously deferred UST systems described in subpart A, this requirement applies after the effective date for subpart D described in § 280.10(a)(1).

§ 280.41 Requirements for petroleum UST systems.

Owners and operators of petroleum UST systems must provide release detection for tanks and piping as follows:

(a) *Tanks.* Tanks must be monitored for releases as follows:

(1) Tanks installed on or before [effective date of rule] must be monitored for releases at least every 30 days using one of the methods listed in § 280.43(d) through (i) except that:

(i) UST systems that meet the performance standards in § 280.20 or § 280.21, and the monthly inventory control requirements in § 280.43(a) or (b), may use tank tightness testing (conducted in accordance with § 280.43(c)) at least every 5 years until 10 years after the tank was installed or upgraded under § 280.21(b), whichever is later;

(ii) Tanks with capacity of 550 gallons or less and tanks with a capacity of 551 to 1,000 gallons that meet the tank diameter criteria in § 280.43(b) may use manual tank gauging (conducted in accordance with § 280.43(b));

(iii) Field-constructed tanks greater than 50,000 gallons may use the alternative release detection requirements in § 280.46; and

(iv) Tanks using § 280.43(e) or § 280.43(f) to monitor for releases, must begin using one of the methods listed in § 280.43(d), (g), (h), or (i) not later than [Five years after effective date of rule].

(2) Tanks installed after [effective date of rule] must be monitored for releases at least every 30 days in accordance with § 280.43(g).

(b) *Piping.* Underground piping that routinely contains regulated substances must be monitored for releases in a manner that meets one of the following requirements:

(1) Piping installed on or before [effective date of rule] must meet one of the following:

(i) *Pressurized piping.* Underground piping that conveys regulated substances under pressure must:

(A) Be equipped with an automatic line leak detector conducted in accordance with § 280.44(a); and

(B) Have an annual line tightness test conducted in accordance with § 280.44(b) or have monthly monitoring conducted in accordance with § 280.44(c).

(ii) *Suction piping.* Underground piping that conveys regulated substances under suction must either have a line tightness test conducted at least every 3 years and in accordance with § 280.44(b), or use a monthly monitoring method conducted in accordance with § 280.44(c). No release detection is required for suction piping that is designed and constructed to meet the following standards:

(A) The below-grade piping operates at less than atmospheric pressure;

(B) The below-grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released;

(C) Only one check valve is included in each suction line;

(D) The check valve is located directly below and as close as practical to the suction pump; and

(E) A method is provided that allows compliance with paragraphs (b)(2)(ii)–(iv) of this section to be readily determined.

(iii) *Bulk piping.* Underground piping associated with airport hydrant fuel distribution systems and field-constructed tanks must meet one of the following release detection requirements:

(A) The requirements in paragraphs (b)(1)(i) or (ii) of this section; or

(B) The alternative release detection requirements in § 280.47.

(2) Piping installed or replaced after [effective date of rule] must meet one of the following:

(i) Pressurized piping must be monitored for releases at least every 30

days in accordance with § 280.43(g) and be equipped with an automatic line leak detector in accordance with § 280.44(a).

(ii) Suction piping must be monitored for releases at least every 30 days in accordance with § 280.43(g). No release detection is required for suction piping that meets paragraphs (b)(1)(ii)(A) through (E) of this section.

(iii) Underground bulk piping associated with airport hydrant fuel distribution systems and field-constructed tanks must meet the requirements in paragraph (b)(1) of this section.

§ 280.42 Requirements for hazardous substance UST systems.

Owners and operators of hazardous substance UST systems must provide containment that meets the following requirements and monitor these systems using § 280.43(g) at least every 30 days:

(a) Secondary containment systems must be designed, constructed and installed to:

(1) Contain regulated substances leaked from the primary containment until they are detected and removed;

(2) Prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and

(3) Be checked for evidence of a release at least every 30 days.

Note to paragraph (a): The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with these requirements for tanks installed on or before [effective date of rule].

(b) Double-walled tanks must be designed, constructed, and installed to:

(1) Contain a release from any portion of the inner tank within the outer wall; and

(2) Detect the failure of the inner wall.

(c) External liners (including vaults) must be designed, constructed, and installed to:

(1) Contain 100 percent of the capacity of the largest tank within its boundary;

(2) Prevent the interference of precipitation or ground-water intrusion with the ability to contain or detect a release of regulated substances; and

(3) Surround the tank completely (*i.e.,* it is capable of preventing lateral as well as vertical migration of regulated substances).

(d) Underground piping must be equipped with secondary containment that satisfies the requirements of this section (*e.g.,* trench liners, double-walled pipe). In addition, underground piping that conveys regulated substances under pressure must be equipped with an automatic line leak detector in accordance with § 280.44(a).

(e) For hazardous substance UST systems installed on or before [Effective date of rule] other methods of release detection may be used if owners and operators:

(1) Demonstrate to the implementing agency that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in §§ 280.43(b) through (i) can detect a release of petroleum;

(2) Provide information to the implementing agency on effective corrective action technologies, health risks, and chemical and physical properties of the stored substance, and the characteristics of the UST site; and,

(3) Obtain approval from the implementing agency to use the alternate release detection method before the installation and operation of the new UST system.

§ 280.43 Methods of release detection for tanks.

Each method of release detection for tanks used to meet the requirements of § 280.41, except field-constructed tanks installed on or before [Effective date of rule] with capacities greater than 50,000 gallons that meet § 280.46, must be conducted in accordance with the following:

(a) *Inventory control.* Product inventory control (or another test of equivalent performance) must be conducted monthly to detect a release of at least 1.0 percent of flow-through plus 130 gallons on a monthly basis in the following manner:

(1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the tank are recorded each operating day;

(2) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;

(3) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

(4) Deliveries are made through a drop tube that extends to within one foot of the tank bottom;

(5) Product dispensing is metered and recorded within the local standards for meter calibration or an accuracy of 6 cubic inches for every 5 gallons of product withdrawn; and

(6) The measurement of any water level in the bottom of the tank is made to the nearest one-eighth of an inch at least once a month.

Note to paragraph (a): Practices described in the American Petroleum Institute Recommended Practice RP 1621, ''Bulk Liquid Stock Control at Retail Outlets'' may be used, where applicable, as guidance in meeting the requirements of this paragraph.

(b) *Manual tank gauging.* Manual tank gauging must meet the following requirements:

(1) Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank;

(2) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period;

(3) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;

(4) A release is suspected and subject to the requirements of subpart E if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

Nominal tank capacity	Minimum duration of test	Weekly standard (one test)	Monthly standard (four test average)
550 gallons or less	36 hours	10 gallons	5 gallons.
551–1,000 gallons (when tank diameter is 64'')	44 hours	9 gallons	4 gallons.
551–1,000 gallons (when tank diameter is 48'')	58 hours	12 gallons	6 gallons.
551–1,000 gallons (also requires periodic tank tightness testing).	36 hours	13 gallons	7 gallons.
1,001–2,000 gallons (also requires periodic tank tightness testing).	36 hours	26 gallons	13 gallons.

(5) Tanks of 550 gallons or less nominal capacity and tanks with a nominal capacity of 551 to 1,000 gallons that meet the tank diameter criteria in the table in paragraph (b)(4) of this section may use this as the sole method

of release detection. All other tanks with a nominal capacity of 551 to 2,000 gallons may use the method in place of inventory control in § 280.43(a). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this Subpart.

(c) *Tank tightness testing.* Tank tightness testing (or another test of equivalent performance) must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

(d) *Automatic tank gauging.* Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet the following requirements:

(1) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product; and

(2) The test must be performed with the system operating in one of the following modes:

(i) In-tank static testing conducted on a periodic basis; or

(ii) Continuous in-tank leak detection operating on an uninterrupted basis or operating within a process that allows the system to gather incremental measurements to determine the leak status of the tank at least once every 30 days.

(e) *Vapor monitoring.* Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

(1) The materials used as backfill are sufficiently porous (*e.g.,* gravel, sand, crushed rock) to readily allow diffusion of vapors from releases into the excavation area;

(2) The stored regulated substance, or a tracer compound placed in the tank system, is sufficiently volatile (*e.g.,* gasoline) to result in a vapor level that is detectable by the monitoring devices located in the excavation zone in the event of a release from the tank;

(3) The measurement of vapors by the monitoring device is not rendered inoperative by the ground water, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days;

(4) The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the tank;

(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the tank system, a component or components of that substance, or a tracer compound placed in the tank system;

(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (e)(1) through (4) of this section and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product; and

(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(f) *Ground-water monitoring.* Testing or monitoring for liquids on the ground water must meet the following requirements:

(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one;

(2) Ground water is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil(s) between the UST system and the monitoring wells or devices is not less than 0.01 cm/sec (*e.g.,* the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials);

(3) The slotted portion of the monitoring well casing must be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substance on the water table into the well under both high and low ground-water conditions;

(4) Monitoring wells shall be sealed from the ground surface to the top of the filter pack;

(5) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible;

(6) The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of free product on top of the ground water in the monitoring wells;

(7) Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in paragraphs (f)(1) through (5) of this section and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product; and

(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(g) *Interstitial monitoring.* Interstitial monitoring between the UST system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

(1) For double-walled UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product;

(2) For UST systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a release between the UST system and the secondary barrier;

(i) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 10^{-6} cm/sec for the regulated substance stored) to direct a release to the monitoring point and permit its detection;

(ii) The barrier is compatible with the regulated substance stored so that a release from the UST system will not cause a deterioration of the barrier allowing a release to pass through undetected;

(iii) For cathodically protected tanks, the secondary barrier must be installed so that it does not interfere with the proper operation of the cathodic protection system;

(iv) The ground water, soil moisture, or rainfall will not render the testing or sampling method used inoperative so that a release could go undetected for more than 30 days;

(v) The site is assessed to ensure that the secondary barrier is always above the ground water and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions; and,

(vi) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

(3) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(4) For UST systems using continuous vacuum, pressure, or liquid-filled methods of interstitial monitoring, the method must be capable of detecting a breach in both the inner and outer walls of the tank and/or piping.

(h) *Statistical inventory reconciliation.* Statistically based testing or monitoring methods must meet the following requirements:

(1) Report a quantitative result with a calculated leak rate;

(2) Be capable of detecting a leak rate of 0.2 gallon per hour; and

(3) Use a threshold that does not exceed one-half the minimum detectible leak rate.

(i) *Other methods.* Any other type of release detection method, or combination of methods, can be used if:

(1) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05; or

(2) The implementing agency may approve another method if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (c) through (h) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use to ensure the protection of human health and the environment.

§ 280.44 Methods of release detection for piping.

Each method of release detection for piping used to meet the requirements of § 280.41, except bulk piping that meets § 280.47, must be conducted in accordance with the following:

(a) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with § 280.40(a)(3).

(b) *Line tightness testing.* A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the operating pressure.

(c) *Applicable tank methods.* Except as described in § 280.41(a), any of the methods in § 280.43(e) through (i) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

§ 280.45 Release detection recordkeeping.

All UST system owners and operators must maintain records in accordance with § 280.34 demonstrating compliance with all applicable requirements of this subpart. These records must include the following:

(a) All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, must be maintained for 5 years, or for another reasonable period of time determined by the implementing agency, from the date of installation;

(b) The results of any sampling, testing, or monitoring must be maintained for at least 1 year, or for another reasonable period of time determined by the implementing agency, except as follows:

(1) The results of annual operation tests conducted in accordance with § 280.40(a)(3) must be maintained for three years. At a minimum, the results must list each component tested, indicate whether each component tested meets criteria in § 280.40(a)(3) or needs to have action taken, and describe any action taken to correct an issue; and

(2) The results of tank tightness testing or bulk tank tightness testing conducted in accordance with § 280.43(c) or § 280.46 must be retained until the next test is conducted; and

(c) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site must be maintained for at least one year after the servicing work is completed, or for another reasonable time period determined by the implementing agency. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer must be retained for 5 years from the date of installation.

§ 280.46 Alternative methods of release detection for field-constructed tanks.

Owners and operators of field-constructed tanks with a capacity greater than 50,000 gallons may use one or a combination of the following alternative methods of release detection:

(a) Conduct an annual bulk tank tightness test that can detect a 0.5 gallon per hour leak rate;

(b) Use an automatic tank gauging system to perform release detection at least every 30 days that can detect a leak rate less than or equal to one gallon per hour. This method must be combined with a bulk tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every three years;

(c) Use an automatic tank gauging system to perform release detection at least every 30 days that can detect a leak rate less than or equal to two gallons per hour. This method must be combined with a bulk tank tightness test that can detect a 0.2 gallon per hour leak rate performed at least every two years; or

(d) Another method approved by the implementing agency if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (a) through (c) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability of detection. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use.

§ 280.47 Alternative methods of release detection for bulk piping.

Owners and operators of underground piping associated with airport hydrant fuel distribution systems and field-constructed tanks may use one or a combination of the following alternative methods of release detection:

(a) Perform a semiannual or annual bulk line tightness test at or above operating pressure in accordance with the table below. Bulk piping segments ≥100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test may be tested at a leak rate up to 6.0 gallons per hour according to the schedule in § 280.40(c):

MAXIMUM DETECTABLE LEAK RATE PER TEST SECTION VOLUME

Test section volume (gallons)	Semiannual test maximum detectable leak rate (gallons per hour)	Annual test maximum detectable leak rate (gallons per hour)
<50,000	1.0	0.5
≥50,000 to <75,000	1.5	0.75
≥75,000 to <100,000	2.0	1.0
≥100,000	3.0	1.5

(b) Perform continuous interstitial monitoring designed to detect a release from any portion of the underground piping that routinely contains product in accordance with § 280.43(g);

(c) Use an automatic line leak detector that alerts the operator to the presence of a leak by restricting or shutting off flow of regulated substances through piping or triggering an audible or visual alarm. This method may be used only if it can detect a leak of three gallons per hour at 10 pounds per square inch line pressure within one hour or equivalent. When using this method, the following must also be met:

(1) Perform interstitial monitoring, designed to detect a release from any portion of the underground piping that routinely contains product, in accordance with § 280.43(g) at least every three months; and

(2) Conduct an annual test of the operation of the leak detector in accordance with § 280.40(a)(3); or

(d) Another method approved by the implementing agency if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in paragraphs (a) through (c) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the frequency and reliability of detection. If the method is approved, the owner and operator must comply with any conditions imposed by the implementing agency on its use.

15. In § 280.50 revise paragraphs (b) and (c) to read as follows:

§ 280.50 Reporting of suspected releases.

* * * * *

(b) Unusual operating conditions observed by owners and operators (such as the erratic behavior of product dispensing equipment, the sudden loss of product from the UST system, an unexplained presence of water in the tank, or water or product in the interstitial space of secondarily contained systems), unless system equipment is found to be defective but not leaking, and is immediately repaired or replaced.

(c) Monitoring results, including alarms, from a release detection method required under § 280.41 and § 280.42 that indicate a release may have occurred unless:

(1) The monitoring device is found to be defective, and is immediately repaired, recalibrated or replaced, and additional monitoring does not confirm the initial result; or

(2) In the case of inventory control, a second month of data does not confirm the initial result.

16. In § 280.52 revise paragraph (a) to read as follows:

§ 280.52 Release investigation and confirmation steps.

* * * * *

(a) *System test.* Owners and operators must conduct tests (according to the requirements for tightness testing in § 280.43(c) and § 280.44(b) or, for UST systems with secondary containment and interstitial monitoring, the integrity testing specified in § 280.36) that determine whether a leak exists in that portion of the tank that routinely contains product, the attached delivery piping, or a breach of the interstitial space.

(1) If the system test confirms a leak, owners and operators must repair, replace, upgrade, or close the UST system. In addition, owners and operators must begin corrective action in accordance with subpart F if the test results for the system, tank, or delivery piping indicate that a release exists.

(2) Further investigation is not required if the test results for the system, tank, and delivery piping do not indicate that a release exists and if environmental contamination is not the basis for suspecting a release.

(3) Owners and operators must conduct a site check as described in paragraph (b) of this section if the test results for the system, tank, and delivery piping do not indicate that a release exists but environmental contamination is the basis for suspecting a release.

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17. In § 280.71 revise the Note at the end of the section to read as follows:

§ 280.71 Permanent closure and changes-in-service.

* * * * *

[**Note:** The following cleaning and closure procedures may be used to comply with this section:

(A) American Petroleum Institute Recommended Practice RP 1604, ''Closure of Underground Petroleum Storage Tanks'';

(B) American Petroleum Institute Standard 2015, ''Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks'';

(C) American Petroleum Institute Recommended Practice 2016, ''Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks'';

(D) American Petroleum Institute Recommended Practice RP 1631, ''Interior Lining and Periodic Inspection of Underground Storage Tanks,'' may be used as guidance for compliance with this section;

(E) National Fire Protection Association Standard 326, ''Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair''; and

(F) The National Institute for Occupational Safety and Health Publication 80–106, ''Criteria for a Recommended Standard * * * Working in Confined Space'' may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.]

* * * * *

18. Revise § 280.90 to read as follows:

§ 280.90 Applicability.

(a) This subpart applies to owners and operators of all petroleum underground storage tank (UST) systems except as otherwise provided in this section.

(b) Owners and operators of petroleum UST systems are subject to these requirements in accordance with § 280.91.

(c) State and Federal government entities whose debts and liabilities are the debts and liabilities of a state or the United States are exempt from the requirements of this subpart.

(d) The requirements of this subpart do not apply to owners and operators of any UST system described in § 280.10 (b), (c)(2) or (c)(3).

(e) If the owner and operator of a petroleum underground storage tank are separate persons, only one person is required to demonstrate financial responsibility; however, both parties are liable in event of noncompliance.

19. Revise § 280.91 to read as follows:

§ 280.91 Compliance dates.

Owners of petroleum underground storage tanks must comply with the requirements of this subpart. Previously deferred UST systems must comply with the requirements of this subpart according to the schedule in § 280.10.

20. In § 280.92 revise the definitions ''Accidental release,'' ''Financial reporting year,'' and ''Provider of financial assurance'' to read as follows:

§ 280.92 Definition of terms.

* * * * *

Accidental release means any sudden or nonsudden release of petroleum arising from operating an underground storage tank that results in a need for corrective action and/or compensation for bodily injury or property damage neither expected nor intended by the tank owner or operator.

* * * * *

Financial reporting year means the latest consecutive twelve-month period for which any of the following reports used to support a financial test is prepared:

(1) a 10–K report submitted to the SEC;

(2) an annual report of tangible net worth submitted to Dun and Bradstreet; or

(3) annual reports submitted to the Energy Information Administration or the Rural Utilities Service.

''Financial reporting year'' may thus comprise a fiscal or a calendar year period.

* * * * *

Provider of financial assurance means an entity that provides financial assurance to an owner or operator of an underground storage tank through one of the mechanisms listed in §§ 280.95–280.107, including a guarantor, insurer, risk retention group, surety, issuer of a letter of credit, issuer of a state-required mechanism, or a state.

* * * * *

21. Revise § 280.94 paragraph (a)(1) to read as follows:

§ 280.94 Allowable mechanisms and combinations of mechanisms.

(a) * * *

(1) An owner or operator, including a local government owner or operator, may use any one or combination of the mechanisms listed in §§ 280.95 through 280.107 to demonstrate financial responsibility under this subpart for one or more underground storage tanks; and

* * * * *

22. In § 280.95 revise paragraph s(b)(1)(ii), (b)(4)(i), (c)(5) introductory text, (c)(5)(i) and (d) to read as follows:

§ 280.95 Financial test of self-insurance.

* * * * *

(b) * * *

(1) * * *

(ii) The sum of the corrective action cost estimates, the current closure and post-closure care cost estimates, and amount of liability coverage for which a financial test is used to demonstrate financial responsibility to EPA under 40 CFR 264.101, 264.143, 264.145, 265.143, 265.145, 264.147, and 265.147 or to a state implementing agency under a state program authorized by EPA under 40 CFR part 271; and

(4) * * *

(i) File financial statements annually with the U.S. Securities and Exchange Commission, the Energy Information Administration, or the Rural Utilities Service; or

* * * * *

(c) * * *

(5) If the financial statements of the owner or operator, and/or guarantor, are not submitted annually to the U.S. Securities and Exchange Commission, the Energy Information Administration or the Rural Utilities Service, the owner or operator, and/or guarantor, must obtain a special report by an independent certified public accountant stating that:

(i) He has compared the data that the letter from the chief financial officer specifies as having been derived from the latest year-end financial statements of the owner or operator, and/or guarantor, with the amounts in such financial statements; and

* * * * *

(d) To demonstrate that it meets the financial test under paragraph (b) or (c) of this section, the chief financial officer of the owner or operator, or guarantor, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: ''the financial test of self-insurance,'' and/or ''guarantee''] to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this financial test or a financial test under an authorized State program by this [insert: ''owner or operator,'' and/or ''guarantor'']: [List for each facility: the name and address of the facility where tanks assured by this financial test are located, and whether tanks are assured by this financial test or a financial test under a State program approved under 40 CFR part 281. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test or a financial test under a State program authorized under 40 CFR part 281 by the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22 or the corresponding State requirements.]

A [insert: ''financial test,'' and/or ''guarantee''] is also used by this [insert: ''owner or operator,'' or ''guarantor''] to demonstrate evidence of financial responsibility in the following amounts under other EPA regulations or state programs authorized by EPA under 40 CFR parts 271 and 145:

EPA Regulations	Amount
Closure (§§ 264.143 and 265.143)	$_____
Post-Closure Care (§§ 264.145 and 265.145).	$_____
Liability Coverage (§§ 264.147 and 265.147).	$_____
Corrective Action (§§ 264.101(b)) ..	$_____
Plugging and Abandonment (§ 144.63).	$_____
Closure	$_____
Post-Closure Care	$_____
Liability Coverage	$_____
Corrective Action	$_____
Plugging and Abandonment	$_____
Total	$_____

This [insert: ''owner or operator,'' or ''guarantor''] has not received an adverse opinion, a disclaimer of opinion, or a ''going concern'' qualification from an independent auditor on his financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of paragraph (b) of § 280.95 are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria of paragraph (c) of § 280.95 are being used to demonstrate compliance with the financial test requirements.]

Alternative I	
1. Amount of annual UST aggregate coverage being assured by a financial test, and/or guarantee	$_____
2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee.	$_____
3. Sum of lines 1 and 2	$_____
4. Total tangible assets	$_____
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6].	$_____
6. Tangible net worth [subtract line 5 from line 4]	$_____
	Yes / No
7. Is line 6 at least $10 million?	_____
8. Is line 6 at least 10 times line 3?	_____
9. Have financial statements for the latest fiscal year been filed with the Securities and Exchange Commission?	_____

10. Have financial statements for the latest fiscal year been filed with the Energy Information Administration?	_____
11. Have financial statements for the latest fiscal year been filed with the Rural Utilities Service?	_____
12. Has financial information been provided to Dun and Bradstreet, and has Dun and Bradstreet provided a financial strength rating of 4A or 5A? [Answer ''Yes'' only if both criteria have been met.]	_____
Alternative II	
1. Amount of annual UST aggregate coverage being assured by a test, and/or guarantee	$_____
2. Amount of corrective action, closure and post-closure care costs, liability coverage, and plugging and abandonment costs covered by a financial test, and/or guarantee.	$_____
3. Sum of lines 1 and 2	$_____
4. Total tangible assets	$_____
5. Total liabilities [if any of the amount reported on line 3 is included in total liabilities, you may deduct that amount from this line and add that amount to line 6].	$_____
6. Tangible net worth [subtract line 5 from line 4]	$_____
7. Total assets in the U.S. [required only if less than 90 percent of assets are located in the U.S.]	$_____
	Yes / No
8. Is line 6 at least $10 million?	_____
9. Is line 6 at least 6 times line 3?	_____
10. Are at least 90 percent of assets located in the U.S.? [If ''No,'' complete line 11.]	_____
11. Is line 7 at least 6 times line 3? [Fill in either lines 12–15 or lines 16–18:]	_____
12. Current assets	$_____
13. Current liabilities	$_____
14. Net working capital [subtract line 13 from line 12]	$_____
15. Is line 14 at least 6 times line 3?	_____
16. Current bond rating of most recent bond issue	_____
17. Name of rating service	_____
18. Date of maturity of bond	_____
19. Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, or the Rural Utilities Service?	_____

[If ''No,'' please attach a report from an independent certified public accountant certifying that there are no material differences between the data as reported in lines 4–18 above and the financial statements for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.95(d) as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

* * * * *

23. In § 280.96 revise paragraphs (b), (c)(3), and (d) to read as follows:

§ 280.96 Guarantee.

* * * * *

(b) Within 120 days of the close of each financial reporting year the guarantor must demonstrate that it meets the financial test criteria of § 280.95 based on year-end financial statements for the latest completed financial reporting year by completing the letter from the chief financial officer described in § 280.95(d) and must deliver the letter to the owner or operator. If the guarantor fails to meet the requirements of the financial test at the end of any financial reporting year, within 120 days of the end of that financial reporting year the guarantor shall send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner or operator. If the Director of the implementing agency notifies the guarantor that he no longer meets the requirements of the financial test of § 280.95 (b) or (c) and (d), the guarantor must notify the owner or operator within 10 days of receiving such notification from the Director. In both cases, the guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.114(e).

(c) * * *

(3) [Insert appropriate phrase: ''On behalf of our subsidiary'' (if guarantor is corporate parent of the owner or operator); ''On behalf of our affiliate'' (if guarantor is a related firm of the owner or operator); or ''Incident to our business relationship with'' (if guarantor is providing the guarantee as an incident to a substantial business relationship with owner or operator)] [owner or operator], guarantor guarantees to [implementing agency] and to any and all third parties that:

In the event that [owner or operator] fails to provide alternative coverage within 60 days after receipt of a notice of cancellation of this guarantee and the [Director of the implementing agency] has determined or suspects that a release has occurred at an underground storage tank covered by this guarantee, the guarantor, upon instructions from the [Director], shall fund a standby trust fund in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

In the event that the [Director] determines that [owner or operator] has failed to perform corrective action for releases arising out of the operation of the above-identified tank(s) in accordance with 40 CFR part 280, subpart F, the guarantor upon written instructions from the [Director] shall fund a standby trust in accordance with the provisions of 40 CFR 280.112, in an amount not to exceed the coverage limits specified above.

If [owner or operator] fails to satisfy a judgment or award based on a determination of liability for bodily injury or property damage to third parties caused by [''sudden'' and/or ''nonsudden''] accidental releases arising from the operation of the above-identified tank(s), or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor, upon written instructions from the [Director], shall fund a standby trust in accordance with the provisions of 40 CFR 280.112 to satisfy such judgment(s), award(s), or settlement

agreement(s) up to the limits of coverage specified above.

* * * * *

(d) An owner or operator who uses a guarantee to satisfy the requirements of § 280.93 must establish a standby trust fund when the guarantee is obtained. Under the terms of the guarantee, all amounts paid by the guarantor under the guarantee will be deposited directly into the standby trust fund in accordance with instructions from the Director of the implementing agency under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

24. In § 280.97 revise paragraph (a) to read as follows:

§ 280.97 Insurance and risk retention group coverage.

(a) An owner or operator may satisfy the requirements of § 280.93 by obtaining liability insurance that conforms to the requirements of this section from a qualified insurer or risk retention group. Such insurance may be in the form of a separate insurance policy or an endorsement to an existing insurance policy.

* * * * *

25. In § 280.98 revise paragraphs (b) and (d) to read as follows:

§ 280.98 Surety bond.

* * * * *

(b) The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

Performance Bond

Date bond executed: _____

Period of coverage: _____

Principal: [legal name and business address of owner or operator]

_____

Type of organization: [insert ''individual,'' ''joint venture,'' ''partnership,'' or ''corporation'']

_____

State of incorporation (if applicable):

_____

Surety(ies): [name(s) and business address(es)]

_____

Scope of Coverage: [List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility. List the coverage guaranteed by the bond: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage caused by'' either ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases'' ''arising from operating the underground storage Tank'']

Penal sums of bond:

Per occurrence $ _____

Annual aggregate $ _____

Surety's bond number: _____

Know All Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to [the implementing agency], in the above penal sums for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sums jointly and severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sums only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sums.

Whereas said Principal is required under Subtitle I of the Solid Waste Disposal Act, as amended, to provide financial assurance for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage caused by'' either ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''; if coverage is different for different tanks or locations, indicate the type of coverage applicable to each tank or location] arising from operating the underground storage tanks identified above, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully [''take corrective action, in accordance with 40 CFR part 280, subpart F and the Director of the state implementing agency's instructions for,'' and/or ''compensate injured third parties for bodily injury and property damage caused by'' either ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] arising from operating the tank(s) indentified above, or if the Principal shall provide alternate financial assurance, as specified in 40 CFR part 280, subpart H, within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

Such obligation does not apply to any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by [the Director of the implementing agency] that the Principal has failed to [''take corrective action, in accordance with 40 CFR part 280, subpart F and the Director's instructions,'' and/or ''compensate injured third parties''] as guaranteed by this bond, the Surety(ies) shall either perform [''corrective action in accordance with 40 CFR part 280 and the Director's instructions,'' and/or ''third-party liability compensation''] or place funds in an amount up to the annual aggregate penal sum into the standby trust fund as directed by [the Regional Administrator or the Director] under 40 CFR 280.112.

Upon notification by [the Director] that the Principal has failed to provide alternate financial assurance within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that [the Director] has determined or suspects that a release has occurred, the Surety(ies) shall place funds in an amount not exceeding the annual aggregate penal sum into the standby trust fund as directed by [the Director] under 40 CFR 280.112.

The Surety(ies) hereby waive(s) notification of amendments to applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the annual aggregate to the penal sum shown on the face of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said annual aggregate penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by the Principal, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Thereof, the Principal and Surety(ies) have executed this Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 40 CFR 280.98(b) as such regulations were constituted on the date this bond was executed.

Principal
[Signature(s)]
[Names(s)]
[Title(s)]
[Corporate seal]
Corporate Surety(ies)
[Name and address]
[State of Incorporation: _____]
[Liability limit: $_____]
[Signature(s)]
[Names(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]
Bond premium: $_____

* * * * *

(d) The owner or operator who uses a surety bond to satisfy the requirements of § 280.93 must establish a standby trust fund when the surety bond is acquired. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund in accordance with instructions from the Director under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

26. In § 280.99 revise paragraphs (b) and (c) to read as follows:

§ 280.99 Letter of credit.

* * * * *

(b) The letter of credit must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Irrevocable Standby Letter of Credit

[Name and address of issuing institution]
[Name and address of Director(s) of state implementing agency(ies)]

Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. _____ in your favor, at the request and for the account of [owner or operator name] of [address] up to the aggregate amount of [in words] U.S. dollars ($[insert dollar amount]), available upon presentation [insert, if more than one Director of a state implementing agency is a beneficiary, ''by any one of you''] of

(1) your sight draft, bearing reference to this letter of credit, No. _____, and

(2) your signed statement reading as follows: ''I certify that the amount of the draft is payable pursuant to regulations issued under authority of Subtitle I of the Solid Waste Disposal Act, as amended.''

This letter of credit may be drawn on to cover [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage caused by'' either ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] arising from operating the underground storage tank(s) identified below in the amount of [in words] $[insert dollar amount] per occurrence and [in words] $[insert dollar amount] annual aggregate:

[List the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located. If more than one instrument is used to assure different tanks at any one facility, for each tank covered by this instrument, list the tank identification number provided in the notification submitted pursuant to 40 CFR 280.22, or the corresponding state requirement, and the name and address of the facility.]

The letter of credit may not be drawn on to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of, employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

This letter of credit is effective as of [date] and shall expire on [date], but such expiration date shall be automatically extended for a period of [at least the length of the original term] on [expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [owner or operator] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [owner or operator] is so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by [owner or operator], as shown on the signed return receipt.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in 40 CFR 280.99(b) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution]
[Date]

This credit is subject to [insert ''the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce,'' or ''the Uniform Commercial Code'']. (c) An owner or operator who uses a letter of credit to satisfy the requirements of § 280.93 must also establish a standby trust fund when the letter of credit is acquired. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Director of the implementing agency will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Director under § 280.112. This standby trust fund must meet the requirements specified in § 280.103.

* * * * *

27. In § 280.101 revise paragraph (d) to read as follows:

§ 280.101 State fund or other state assurance.

* * * * *

(d) The Regional Administrator will notify the state of his determination regarding the acceptability of the state's fund or other assurance in lieu of financial mechanisms specified in this subpart. Within 60 days after the Regional Administrator notifies a state that a state fund or other state assurance is acceptable, the state must provide to each owner or operator for which it is assuming financial responsibility a letter or certificate describing the nature of the state's assumption of responsibility. The letter or certificate from the state must include, or have attached to it, the following information: The facility's name and address and the amount of funds for corrective action and/or for compensating third parties that is assured by the state. The owner or operator must maintain this letter or certificate on file as proof of financial responsibility in accordance with § 280.111(b)(8).

28. In § 280.103 revise paragraph (b)(1) and the Trust Agreement introductory text and section 4 to read as follows:

§ 280.103 Standby trust fund.

* * * * *

(b)(1) The standby trust agreement, or trust agreement, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Trust Agreement

Trust agreement, the ''Agreement,'' entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert ''corporation,'' ''partnership,'' ''association,'' or ''proprietorship''], the ''Grantor,'' and [name of corporate trustee], [insert ''Incorporated in the state of _____'' or ''a national bank''], the ''Trustee.''

Whereas, the United States Environmental Protection Agency, ''EPA,'' an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of an underground storage tank shall provide assurance that funds will be available when needed for corrective action and third-party compensation for bodily injury and property

damage caused by sudden and nonsudden accidental releases arising from the operation of the underground storage tank. The attached Schedule A lists the number of tanks at each facility and the name(s) and address(es) of the facility(ies) where the tanks are located that are covered by the [insert ''standby'' where trust agreement is standby trust agreement] trust agreement.

[Whereas, the Grantor has elected to establish [insert either ''a guarantee,'' ''surety bond,'' or ''letter of credit''] to provide all or part of such financial assurance for the underground storage tanks identified herein and is required to establish a standby trust fund able to accept payments from the instrument (This paragraph is only applicable to the standby trust agreement.)];

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee;

Now, therefore, the Grantor and the Trustee agree as follows:

* * * * *

Section 4. Payment for [''Corrective Action'' and/or ''Third-Party Liability Claims'']

The Trustee shall make payments from the Fund as [the Director of the implementing agency] shall direct, in writing, to provide for the payment of the costs of [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage caused by'' either ''sudden accidental releases'' or ''nonsudden accidental Releases'' or ''accidental releases''] arising from operating the tanks covered by the financial assurance mechanism identified in this Agreement.

The Fund may not be drawn upon to cover any of the following:

(a) Any obligation of [insert owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;

(b) Bodily injury to an employee of [insert owner or operator] arising from, and in the course of employment by [insert owner or operator];

(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

(e) Bodily injury or property damage for which [insert owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or agreement other than a contract or agreement entered into to meet the requirements of 40 CFR 280.93.

The Trustee shall reimburse the Grantor, or other persons as specified by [the Director], from the Fund for corrective action expenditures and/or third-party liability claims in such amounts as [the Director] shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as [the Director] specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

* * * * *

29. Amend § 280.104 as follows:

a. By revising paragraph (b)

b. By revising paragraph (d)

c. By revising paragraph (e)

d. By adding paragraph (h)

§ 280.104 Local government bond rating test.

* * * * *

(b) A local government owner or operator or local government serving as a guarantor that is not a general-purpose local government and does not have the legal authority to issue general obligation bonds may satisfy the requirements of § 280.93 by having a currently outstanding issue or issues of revenue bonds of $1 million or more, excluding refunded issues, and by also having a Moody's rating of Aaa, Aa, A, or Baa, or a Standard & Poor's rating of AAA, AA, A, or BBB as the lowest rating for any rated revenue bond issued by the local government. Where bonds are rated by both Moody's and Standard & Poor's, the lower rating for each bond must be used to determine eligibility. Bonds that are backed by credit enhancement may not be considered in determining the amount of applicable bonds outstanding.

* * * * *

(d) To demonstrate that it meets the local government bond rating test, the chief financial officer of a general purpose local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
				[Moody's or Standard & Poor's]

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding general obligation bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.104(d) as such regulations were constituted on the date shown immediately below.

[Date] _____

[Signature] _____

[Name] _____

[Title] _____

(e) To demonstrate that it meets the local government bond rating test, the chief financial officer of local government owner or operator and/or guarantor other than a general purpose government must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the bond rating test to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from

operating (an) underground storage tank(s). This local government is not organized to provide general governmental services and does not have the legal authority under state law or constitutional provisions to issue general obligation debt.

Underground storage tanks at the following facilities are assured by this bond rating test: [List for each facility: the name and address of the facility where tanks are assured by the bond rating test].

The details of the issue date, maturity, outstanding amount, bond rating, and bond rating agency of all outstanding revenue bond issues that are being used by [name of local government owner or operator, or guarantor] to demonstrate financial responsibility are as follows: [complete table]

Issue date	Maturity date	Outstanding amount	Bond rating	Rating agency
				[Moody's or Standard & Poor's]

The total outstanding obligation of [insert amount], excluding refunded bond issues, exceeds the minimum amount of $1 million. All outstanding revenue bonds issued by this government that have been rated by Moody's or Standard & Poor's are rated as at least investment grade (Moody's Baa or Standard & Poor's BBB) based on the most recent ratings published within the last 12 months. The revenue bonds listed are not backed by third-party credit enhancement or insured by a municipal bond insurance company. Neither rating service has provided notification within the last 12 months of downgrading of bond ratings below investment grade or of withdrawal of bond rating other than for repayment of outstanding bond issues.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR part 280.104(e) as such regulations were constituted on the date shown immediately below.

[Date] _____
[Signature] _____
[Name] _____
[Title] _____

* * * * *

(h) If the local government owner or operator fails to obtain alternate assurance within 150 days of finding that it no longer meets the requirements of the bond rating test or within 30 days of notification by the Director of the implementing agency that it no longer meets the requirements of the bond rating test, the owner or operator must notify the Director of such failure within 10 days.

30. In § 280.105 revise paragraph (c) and the Letter From Chief Financial Officer to read as follows:

§ 280.105 Local government financial test.

* * * * *

(c) To demonstrate that it meets the financial test under paragraph (b) of this section, the chief financial officer of the local government owner or operator, must sign, within 120 days of the close of each financial reporting year, as defined by the twelve-month period for which financial statements used to support the financial test are prepared, a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter From Chief Financial Officer

I am the chief financial officer of [insert: name and address of the owner or operator]. This letter is in support of the use of the local government financial test to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating [an] underground storage tank[s].

Underground storage tanks at the following facilities are assured by this financial test [List for each facility: the name and address of the facility where tanks assured by this financial test are located. If separate mechanisms or combinations of mechanisms are being used to assure any of the tanks at this facility, list each tank assured by this financial test by the tank identification number provided in the notification submitted pursuant to 40 CFR part 280.22 or the corresponding state requirements.]

This owner or operator has not received an adverse opinion, or a disclaimer of opinion from an independent auditor on its financial statements for the latest completed fiscal year. Any outstanding issues of general obligation or revenue bonds, if rated, have a Moody's rating of Aaa, Aa, A, or Baa or a Standard and Poor's rating of AAA, AA, A, or BBB; if rated by both firms, the bonds have a Moody's rating of Aaa, Aa, A, or Baa and a Standard and Poor's rating of AAA, AA, A, or BBB.

Worksheet for Municipal Financial Test

Part I: Basic Information

1. Total Revenues

a. Revenues (dollars)_____

Value of revenues excludes liquidation of investments and issuance of debt. Value includes all general fund operating and non-operating revenues, as well as all revenues from all other governmental funds including enterprise, debt service, capital projects, and special revenues, but excluding revenues to funds held in a trust or agency capacity.

b. Subtract interfund transfers (dollars)_____
c. Total Revenues (dollars)_____

2. Total Expenditures

a. Expenditures (dollars)_____

Value consists of the sum of general fund operating and non-operating expenditures including interest payments on debt, payments for retirement of debt principal, and total expenditures from all other governmental funds including enterprise, debt service, capital projects, and special revenues.

b. Subtract interfund transfers (dollars)_____
c. Total Expenditures (dollars) _____

3. Local Revenues

a. Total Revenues (from 1c) (dollars)_____
b. Subtract total intergovernmental transfers (dollars)_____
c. Local Revenues (dollars)_____

4. Debt Service

a. Interest and fiscal charges (dollars)_____
b. Add debt retirement (dollars)_____
c. Total Debt Service (dollars)_____

5. Total Funds (Dollars)_____

(Sum of amounts held as cash and investment securities from all funds, excluding amounts held for employee retirement funds, agency funds, and trust funds)

6. Population (Persons)_____

Part II: Application of Test

7. Total Revenues to Population

a. Total Revenues (from 1c)_____
b. Population (from 6)_____
c. Divide 7a by 7b_____
d. Subtract 417_____
e. Divide by 5,212_____
f. Multiply by 4.095_____

8. Total Expenses to Population

a. Total Expenses (from 2c)_____
b. Population (from 6)_____
c. Divide 8a by 8b_____
d. Subtract 524_____
e. Divide by 5,401_____
f. Multiply by 4.095_____

9. Local Revenues to Total Revenues

a. Local Revenues (from 3c)_____

b. Total Revenues (from 1c)_____
c. Divide 9a by 9b_____
d. Subtract .695_____
e. Divide by .205_____
f. Multiply by 2.840_____

10. Debt Service to Population

a. Debt Service (from 4c)_____
b. Population (from 6)_____
c. Divide 10a by 10b_____
d. Subtract 51_____
e. Divide by 1,038_____
f. Multiply by −1.866_____

11. Debt Service to Total Revenues

a. Debt Service (from 4c)_____
b. Total Revenues (from 1c)_____
c. Divide 11a by 11b_____
d. Subtract .068_____
e. Divide by .259_____
f. Multiply by -3.533_____

12. Total Revenues to Total Expenses

a. Total Revenues (from 1c)_____
b. Total Expenses (from 2c)_____
c. Divide 12a by 12b_____
d. Subtract .910_____
e. Divide by .899_____
f. Multiply by 3.458_____

13. Funds Balance to Total Revenues

a. Total Funds (from 5)_____
b. Total Revenues (from 1c)_____
c. Divide 13a by 13b_____
d. Subtract .891_____
e. Divide by 9.156_____
f. Multiply by 3.270_____

14. Funds Balance to Total Expenses

a. Total Funds (from 5)_____
b. Total Expenses (from 2c)_____
c. Divide 14a by 14b_____
d. Subtract .866_____
e. Divide by 6.409_____
f. Multiply by 3.270_____

15. Total Funds to Population_____

a. Total Funds (from 5)_____
b. Population (from 6)_____
c. Divide 15a by 15b_____
d. Subtract 270_____
e. Divide by 4,548_____
f. Multiply by 1.866_____

16. Add 7f + 8f + 9f + 10f + 11f + 12f + 13f + 14f + 15f + 4.937_____

I hereby certify that the financial index shown on line 16 of the worksheet is greater than zero and that the wording of this letter is identical to the wording specified in 40 CFR part 280.105(c) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

* * * * *

31. Amend § 280.106 as follows:

a. By revising paragraph (a)(1)

b. By revising paragraph (b)

c. By revising paragraph (d)(7)(d)

d. By revising paragraph (e)(7)(d)

e. By revising paragraph (e)(8)(d)

§ 280.106 Local government guarantee.

(a) * * *

(1) Demonstrate that it meets the bond rating test requirement of § 280.104 and deliver a copy of the chief financial officer's letter as contained in § 280.104(d) and § 280.104(e) to the local government owner or operator; or

* * * * *

(b) If the local government guarantor is unable to demonstrate financial assurance under any of § § 280.104, 280.105, 280.107(a), 280.107(b), or 280.107(c), at the end of the financial reporting year, the guarantor shall send by certified mail, before cancellation or non-renewal of the guarantee, notice to the owner or operator. The guarantee will terminate no less than 120 days after the date the owner or operator receives the notification, as evidenced by the return receipt. The owner or operator must obtain alternative coverage as specified in § 280.114(e).

* * * * *

(d) * * *

(7) * * *

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

* * * * *

(e) * * *

(7) * * *

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

* * * * *

(8) * * *

(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert: local government owner or operator] that is not the direct result of a release from a petroleum underground storage tank;

* * * * *

32. In § 280.107 revise paragraph (d) to read as follows:

§ 280.107 Local government fund.

* * * * *

(d) To demonstrate that it meets the requirements of the local government fund, the chief financial officer of the local government owner or operator and/or guarantor must sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted:

Letter from Chief Financial Officer

I am the chief financial officer of [insert: name and address of local government owner or operator, or guarantor]. This letter is in support of the use of the local government fund mechanism to demonstrate financial responsibility for [insert: ''taking corrective action'' and/or ''compensating third parties for bodily injury and property damage''] caused by [insert: ''sudden accidental releases'' or ''nonsudden accidental releases'' or ''accidental releases''] in the amount of at least [insert: dollar amount] per occurrence and [insert: dollar amount] annual aggregate arising from operating (an) underground storage tank(s).

Underground storage tanks at the following facilities are assured by this local government fund mechanism: [List for each facility: the name and address of the facility where tanks are assured by the local government fund].

[Insert: ''The local government fund is funded for the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanism(s) that provide the remaining coverage.'' or ''The local government fund is funded for five times the full amount of coverage required under § 280.93, or funded for part of the required amount of coverage and used in combination with other mechanisms(s) that provide the remaining coverage,'' or ''A payment is made to the fund once every year for seven years until the fund is fully-funded and [name of local government owner or operator] has available bonding authority, approved through voter referendum, of an amount equal to the difference between the required amount of coverage and the amount held in the dedicated fund'' or ''A payment is made to the fund once every year for seven years until the fund is fully-funded and I have attached a letter signed by the State Attorney General stating that (1) the use of the bonding authority will not increase the local government's debt beyond the legal debt ceilings established by the relevant state laws and (2) that prior voter approval is not necessary before use of the bonding authority'']].

The details of the local government fund are as follows:

Amount in Fund (market value of fund at close of last fiscal year):_____

[If fund balance is incrementally funded as specified in § 280.107(c), insert:

Amount added to fund in the most recently completed fiscal year:_____
Number of years remaining in the pay-in period: _____]

A copy of the state constitutional provision, or local government statute, charter, ordinance or order dedicating the fund is attached.

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 280.107(d) as such regulations were constituted on the date shown immediately below.

[Date]
[Signature]
[Name]
[Title]

* * * * *

33. In § 280.109 revise paragraph (b)(3) to read as follows:

§ 280.109 Cancellation or nonrenewal by a provider of financial assurance.

* * * * *

(b) * * *

(3) The evidence of the financial assistance mechanism subject to the termination maintained in accordance with § 280.111(b).

34. In § 280.111 revise paragraphs (b)(9)(ii) and (iii) to read as follows:

§ 280.111 Recordkeeping.

* * * * *

(b) * * *

(9) * * *

(ii) Year-end financial statements for the most recent completed financial reporting year showing the amount in the fund. If the fund is established under § 280.107(c) using incremental funding backed by bonding authority, the financial statements must show the previous year's balance, the amount of funding during the year, and the closing balance in the fund.

(iii) If the fund is established under § 280.107(c) using incremental funding backed by bonding authority, the owner or operator must also maintain documentation of the required bonding authority, including either the results of a voter referendum (under § 280.107(c)(1)), or attestation by the State Attorney General as specified under § 280.107(c)(2).

* * * * *

35. Revise § 280.113 to read as follows:

§ 280.113 Release from the requirements.

An owner or operator is no longer required to maintain financial responsibility under this subpart for an underground storage tank after the tank has been permanently closed or, if corrective action is required, after corrective action has been completed and the tank has been permanently closed as required by 40 CFR part 280, subpart G.

36. Add Subpart J to read as follows:

Subpart J—Operator Training

Sec.

280.240 General requirement for all UST systems.
280.241 Designation of operators.
280.242 Requirements for operator training.
280.243 Timing of operator training.
280.244 Retraining.
280.245 Documentation.

Subpart J—Operator Training

§ 280.240 General requirement for all UST systems.

Not later than [Three years after effective date of rule], all owners and operators of UST systems must ensure they have designated Class A, Class B, and Class C operators who meet the requirements of this subpart.

§ 280.241 Designation of operators.

UST system owners and operators must designate:

(a) At least one Class A and one Class B operator for each UST or group of USTs at a facility; and

(b) Each individual who meets the definition of Class C operator at the UST facility as a Class C operator. Class C operators must be employees of the UST system owner and operator.

§ 280.242 Requirements for operator training.

UST system owners and operators must ensure Class A, Class B, and Class C operators meet the requirements of this section. Any individual designated for more than one operator class must successfully complete the required training program or comparable examination according to the operator class in which the individual is designated.

(a) *Class A operators.* Each designated Class A operator must either be trained in accordance with paragraphs (a)(1) and (a)(2) of this section or pass a comparable examination in accordance with paragraph (e) of this section. Class A operators must receive training from an independent trainer.

(1) At a minimum, the training program for the Class A operator must provide general knowledge of the requirements in this paragraph. At a minimum, the training must teach the Class A operators, as applicable, on the purpose, methods, and function of:

(i) Spill and overfill prevention;

(ii) Release detection;

(iii) Corrosion protection;

(iv) Emergency response;

(v) Product and equipment compatibility;

(vi) Financial responsibility;

(vii) Notification and storage tank registration;

(viii) Temporary and permanent closure;

(ix) Related reporting and recordkeeping;

(x) Environmental and regulatory consequences of releases; and

(xi) Training requirements for Class B and Class C operators.

(2) At a minimum, the training program must evaluate Class A operators to determine these individuals have the knowledge and skills to make informed decisions regarding compliance and determine whether appropriate individuals are fulfilling the operation, maintenance, and recordkeeping requirements for UST systems in accordance with paragraph (a)(1) of this section.

(b) *Class B operators.* Each designated Class B operator must either receive training in accordance with paragraphs (b)(1) and (b)(2) of this section or pass a comparable examination, in accordance with paragraph (e) of this section. Class B operators must receive training from an independent trainer.

(1) At a minimum, the training program for the Class B operator must cover either: General requirements that encompass all regulatory requirements and typical equipment used at UST facilities; or site-specific requirements which address only the regulatory requirements and equipment specific to the facility. At a minimum, the training program for Class B operators must teach the Class B operator, as applicable, on the purpose, methods, and function of:

(i) Operation and maintenance;

(ii) Spill and overfill prevention;

(iii) Release detection and related reporting;

(iv) Corrosion protection and related testing;

(v) Emergency response;

(vi) Product and equipment compatibility;

(vii) Reporting and recordkeeping;

(viii) Environmental and regulatory consequences of releases; and

(ix) Training requirements for Class C operator.

(2) At a minimum, the training program must evaluate Class B operators to determine these individuals have the knowledge and skills to implement applicable UST regulatory requirements in the field on the components of typical UST systems or, as applicable, site-specific equipment used at an UST facility in accordance with paragraph (b)(1) of this section.

(c) *Class C operators.* Each designated Class C operator must either: Be trained by a Class A or Class B operator in accordance with paragraphs (c)(1) and (c)(2) of this section; complete a training program in accordance with paragraphs (c)(1) and (c)(2) of this section; or pass a comparable examination, in accordance with paragraph (e) of this section.

(1) At a minimum, the training program for the Class C operator must teach the Class C operators to take appropriate actions in response to:

(i) Emergencies; and

(ii) Alarms caused by spills or releases from the UST system.

(2) At a minimum, the training program must evaluate Class C operators to determine these individuals have the knowledge and skills to take appropriate

action in response to emergencies (including situations posing an immediate danger or threat to the public or to the environment and that require immediate action) or alarms caused by spills or releases from an underground storage tank system.

(d) *Training program.* Any training program must meet the minimum requirements of this section and include an evaluation through testing, a practical demonstration, or another approach acceptable to the implementing agency. The evaluation component of the training program must be developed and administered by an independent organization or the implementing agency or delegated authority.

(e) *Comparable Examination.* A comparable examination must, at a minimum, test the knowledge of the Class A, Class B, or Class C operators in accordance with the requirements of paragraphs (a), (b), (c) of this section, as applicable. The examination must be developed and administered by an independent organization or the implementing agency or delegated authority.

§ 280.243 Timing of operator training.

(a) An owner and operator must ensure that designated Class A, Class B, and Class C operators meet requirements in § 280.242 according to the following schedule:

PHASE-IN SCHEDULE FOR OPERATOR TRAINING

Criteria	Date when operator training or comparable examination is required
One or more USTs at the facility were installed on or before 12/22/1988	[1 year after effective date of rule].
No USTs at the facility were installed on or before 12/22/1988 and at least one UST at the facility was installed on or before 12/22/1998.	[2 years after effective date of rule].
All USTs at the facility were installed after 12/22/1998	[3 years after effective date of rule].

(b) Class A and Class B operators designated after the applicable effective date indicated in the schedule above must meet requirements in § 280.242 within 30 days of assuming duties.

(c) Class C operators designated after the applicable effective date indicated in the schedule above must be trained before assuming duties of a Class C operator.

§ 280.244 Retraining.

Class A and Class B operators of UST systems determined by the implementing agency to be out of compliance must complete a training program or comparable examination in accordance with requirements in § 280.242. At a minimum, the training must cover the area(s) determined to be out of compliance. UST system owners and operators must ensure Class A and Class B operators are retrained pursuant to this section no later than 30 days from the date the implementing agency determines the facility is out of compliance except in one of the following situations:

(a) Class A and Class B operators take annual refresher training. Refresher training for Class A and Class B operators must cover all applicable requirements in § 280.242, or

(b) The implementing agency, at its discretion, grants a waiver of this retraining requirement to either the Class A or Class B operator or both.

§ 280.245 Documentation.

Owners and operators of underground storage tank systems must maintain a list of designated Class A, Class B, and Class C operators and maintain records verifying that training and retraining, as applicable, have been completed, in accordance with § 280.34 as follows:

(a) The list must:

(1) Identify all Class A, Class B, and Class C operators at the facility over the last three years; and

(2) Include names, class of operator trained, date assumed duties, date each completed initial training, and any retraining.

(b) Records verifying completion of training or retraining must be a paper or electronic record for Class A, Class B, and Class C operators. The records, at a minimum, must identify name of trainee, date trained, and operator training class completed. Owners and operators must maintain these records for as long as Class A, Class B, and Class C operators are designated. The following requirements also apply to the following types of training:

(1) Records from classroom or field training programs or a comparable examination must, at a minimum, be signed by the trainer or examiner and list the printed name of the trainer or examiner and the company name, address, and phone number;

(2) Records from computer-based training must, at a minimum, indicate the name of the training program and web address, if Internet-based; and

(3) Records of retraining must include those areas on which the Class A or Class B operator has been retrained.

37. Appendix III to Part 280 is revised to read as follows:

Appendix III to Part 280—Statement for Shipping Tickets and Invoices

Note. A federal law (the Solid Waste Disposal Act, as amended), requires owners of certain underground storage tanks to notify implementing agencies of the existence of their tanks. Notifications must be made within 30 days of bringing the tank into use. Consult EPA's regulations at 40 CFR 280.22 to determine if you are affected by this law.

BILLING CODE 6560–50–P

EPA

United States
Environmental Protection Agency
Washington, DC 20460

Form Approved.
OMB No.2050-0068

Notification for Underground Storage Tanks

Implementing Agency Name and Address:

IMPLEMENTING AGENCY USE ONLY
ID NUMBER:
DATE RECEIVED:
DATE ENTERED INTO COMPUTER:
DATA ENTRY CLERK INITIALS:
OWNER WAS CONTACTED TO CLARIFY RESPONSES, COMMENTS:

TYPE OF NOTIFICATION

☐ A. NEW FACILITY ☐ B. AMENDED ☐ C. CLOSURE

_____ Number of tanks at facility _____ Number of continuation sheets attached

INSTRUCTIONS AND GENERAL INFORMATION

Please type or print in ink. Also, be sure you have signatures in ink for sections VIII and XI. Complete a notification form for each location containing underground storage tanks. If more than 5 tanks are owned at this location, you may photocopy pages 3 through 5 and use them for additional tanks.

The primary purpose of this notification form is to locate and evaluate underground storage tank systems (USTs) that store or have stored petroleum or hazardous substances. The information you provide will be based on reasonably available records, or in the absence of such records, your knowledge or recollection.

Federal law requires UST owners to use this notification form for all USTs storing regulated substances that are brought into use after May 8, 1986, or USTs in the ground as of May 8, 1986 that have stored regulated substances at any time since January 1, 1974. The information requested is required by Section 9002 of the Solid Waste Disposal Act (SWDA), as amended.

Who Must Notify? Section 9002 of SWDA, as amended, requires owners of USTs that store regulated substances (unless exempted) to notify designated state or local agencies of the existence of their USTs. "Owner" is defined as:

· In the case of an UST in use on November 8, 1984, or brought into use after that date, any person who owns an UST used for storage, use, or dispensing of regulated substances; or

· In the case of an UST in use before November 8, 1984, but no longer in use on that date, any person who owned the UST immediately before its discontinuation.

Also, if the state so requires, any facility that has made any changes to facility information or UST system status, must submit a notification form (only amended information needs to be included).

What USTs Are Included? An UST system is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and whose volume (including connected underground piping) is 10 percent or more beneath the ground. Regulated USTs store petroleum or hazardous substances (see the "What Substances Are Covered").

What Tanks Are Excluded From Notification (see § 280.10 and § 280.12)?

- Tanks removed from the ground before May 8, 1986;
- Farm or residential tanks of 1,100 gallons or less capacity storing motor fuel for noncommercial purposes;
- Tanks storing heating oil for use on the premises where stored;
- Septic tanks;
- Certain pipeline facilities regulated under chapter 601 of Title 49;
- Surface impoundments, pits, ponds, or lagoons;
- Storm water or wastewater collection systems;
- Flow-through process tanks;
- Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- Tanks on or above the floor of underground areas, such as basements or tunnels;
- Tanks with a capacity of 110 gallons or less.

What Substances Are Covered? The notification requirements apply to USTs containing petroleum or certain hazardous substances. Petroleum includes gasoline, used oil, diesel fuel, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Hazardous substances are those found in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA.

Where To Notify? Send completed forms to:

When To Notify? Owners who bring USTs into use after May 8, 1986, must notify within 30 days of bringing the UST into use. Owners of previously deferred USTs must notify by [ENTER DATE 30 days after REG]. If the state requires notification of any amendments to facility, send information to state agency immediately.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $16,000 for each tank for which notification is not given or for which false information is given.

I. OWNERSHIP OF UST(s)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

Street Address

County

City	State	Zip Code

Phone Number (Include Area Code)

II. LOCATION OF UST(s)

If required by implementing agency, give the geographic location of USTs by degrees, minutes, and seconds. Example: Latitude 42° 36' 12" N, Longitude 85° 24' 17" W

Latitude _____ **Longitude** _____

Facility Name or Company Site Identifier, as applicable

☐ If address is the same as in Section I, check the box and proceed to section III.
If address is different, enter address below:
Street Address

County

City	State	Zip Code

EPA

United States
Environmental Protection Agency
Washington, DC 20460

Form Approved.
OMB No.2050-0068

Notification for Underground Storage Tanks

III. TYPE OF OWNER

- ☐ Federal Government
- ☐ State Government ☐ Commercial
- ☐ Local Government ☐ Private

IV. INDIAN COUNTRY

- ☐ USTs are located on land within an Indian Reservation or on trust lands outside reservation boundaries.
- ☐ USTs are owned by a Native American nation or tribe.

Tribe or Nation where USTs are located:

V. TYPE OF FACILITY

- ☐ Gas Station
- ☐ Petroleum Distributor
- ☐ Air Taxi (Airline)
- ☐ Aircraft Owner
- ☐ Auto Dealership
- ☐ Railroad
- ☐ Federal - Non-Military
- ☐ Federal - Military
- ☐ Industrial
- ☐ Contractor
- ☐ Trucking/Transport
- ☐ Utilities
- ☐ Residential
- ☐ Farm
- ☐ Other (Explain) _____

VI. CONTACT PERSON IN CHARGE OF TANKS

Name:	Job Title:	Address:	Phone Number (Include Area Code):

VII. FINANCIAL RESPONSIBILITY

☐ I have met the financial responsibility requirements (in accordance with 40 CFR Part 280 Subpart H) by using the following mechanisms:

Check All that Apply

- ☐ Self Insurance
- ☐ Commercial Insurance
- ☐ Risk Retention Group
- ☐ Local Government Financial Test
- ☐ Guarantee
- ☐ Surety Bond
- ☐ Letter of Credit
- ☐ Bond Rating Test
- ☐ State Funds
- ☐ Trust Fund
- ☐ Other Method (describe here)

_____

VIII. CERTIFICATION (Read and sign after completing ALL SECTIONS of this notification form)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in Sections I through XI of this notification form and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

Name and official title of owner or owner's authorized representative (Print)	Signature	Date Signed

Paperwork Reduction Act Notice
The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

EPA

United States
Environmental Protection Agency
Washington, DC 20460

Form Approved.
OMB No.2050-0068

Notification for Underground Storage Tanks

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for all tanks and piping at this location.)

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
1. Status of Tank (check only one) Currently In Use	☐	☐	☐	☐	☐
Temporarily Closed	☐	☐	☐	☐	☐
Permanently Closed	☐	☐	☐	☐	☐
2. Date of Installation (month/year)					
3. Estimated Total Capacity (gallons)					
4. Material of Construction (check all that apply) Asphalt Coated or Bare Steel	☐	☐	☐	☐	☐
Cathodically Protected Steel	☐	☐	☐	☐	☐
Coated and Cathodically Protected Steel	☐	☐	☐	☐	☐
Composite (steel clad with noncorrodible material)	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Lined Interior	☐	☐	☐	☐	☐
Excavation Liner	☐	☐	☐	☐	☐
Double Walled	☐	☐	☐	☐	☐
Noncorrodible Tank Jacket	☐	☐	☐	☐	☐
Concrete	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
If other, please specify here	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
Check box if tank has ever been repaired	☐	☐	☐	☐	☐
5. Piping Material (check all that apply) Bare Steel	☐	☐	☐	☐	☐
Galvanized Steel	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Flexible Plastic	☐	☐	☐	☐	☐
Copper	☐	☐	☐	☐	☐
Cathodically Protected	☐	☐	☐	☐	☐
Double Walled	☐	☐	☐	☐	☐
Secondary Containment	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
If other, please specify here	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
6. Piping Type (check all that apply) Safe Suction (no valve at tank)	☐	☐	☐	☐	☐
U.S. Suction (valve at tank)	☐	☐	☐	☐	☐
Pressure	☐	☐	☐	☐	☐
Gravity Feed	☐	☐	☐	☐	☐

EPA

United States
Environmental Protection Agency
Washington, DC 20460

Form Approved.
OMB No.2050-0068

Notification for Underground Storage Tanks

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
7. Substance Currently Stored (or last stored in the case of closed tanks) (check all that apply) — Gasoline (containing ≤10% ethanol)	☐	☐	☐	☐	☐
Diesel	☐	☐	☐	☐	☐
Biodiesel	☐	☐	☐	☐	☐
Kerosene	☐	☐	☐	☐	☐
Heating Oil	☐	☐	☐	☐	☐
Used Oil	☐	☐	☐	☐	☐
Gasoline Containing >10% Ethanol (specify amount)	_____	_____	_____	_____	_____
If other, please specify here	_____	_____	_____	_____	_____
Hazardous Substance	☐	☐	☐	☐	☐
CERCLA Name and/or CAS Number	_____	_____	_____	_____	_____
Mixture of Substances	☐	☐	☐	☐	☐
Please specify here	_____	_____	_____	_____	_____

8. **Release Detection** (check all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
Manual Tank Gauging	☐		☐		☐		☐		☐	
Tank Tightness Testing	☐		☐		☐		☐		☐	
Inventory Control	☐		☐		☐		☐		☐	
Automatic Tank Gauging	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Vapor Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Groundwater Monitoring	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Interstitial Monitoring (required for new or replaced tanks/piping)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Statistical Inventory Reconciliation	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Automatic Line Leak Detectors		☐		☐		☐		☐		☐
Line Tightness Testing (applicable suction piping)		☐		☐		☐		☐		☐
Bulk Tightness Test (field-constructed tank)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Bulk Line Tightness Test (airport hydrant distribution system)		☐		☐		☐		☐		☐
No Release Detection Dequired (such as some types of suction piping)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other method allowed by implementing agency	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
If other, please specify here										

9. **Spill and Overfill Protection**					
Overfill Device Installed	☐	☐	☐	☐	☐
Spill Device Installed	☐	☐	☐	☐	☐

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Form Approved.
OMB No.2050-0068

Notification for Underground Storage Tanks

Tank Identification Number	Tank No.	Tank No.	Tank No.	Tank No.	Tank No.
X. CLOSURE OR CHANGE IN SERVICE					
Closure or Change in Service					
Estimated date the UST was last used for storing regulated substances (month/day/year)	_____	_____	_____	_____	_____
Check box if this is a change in service	☐	☐	☐	☐	☐
2. **Tank Closure**					
Estimated date tank closed (month/day/year)	_____	_____	_____	_____	_____
(check all that apply below)					
Tank was removed from ground	☐	☐	☐	☐	☐
Tank was closed in ground	☐	☐	☐	☐	☐
Tank filled with inert material	☐	☐	☐	☐	☐
Describe the inert fill material here	_____	_____	_____	_____	_____
3. **Site Assessment**					
Check box if the site assessment was completed	☐	☐	☐	☐	☐
Check box if evidence of a leak was detected	☐	☐	☐	☐	☐
XI. CERTIFICATION OF INSTALLATION (COMPLETE FOR UST SYSTEMS INSTALLED AFTER DECEMBER 22, 1988)					
Installer Of Tank And Piping Must Check All That Apply:					
Installer certified by tank and piping manufacturers	☐	☐	☐	☐	☐
Installer certified or licensed by the implementing agency	☐	☐	☐	☐	☐
Installation inspected by a registered engineer	☐	☐	☐	☐	☐
Installation inspected and approved by implementing agency	☐	☐	☐	☐	☐
Manufacturer's installation checklists have been completed	☐	☐	☐	☐	☐
Another method allowed by State agency If so, please specify here	☐	☐	☐	☐	☐
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Signature of UST Installer Certifying Proper Installation of UST System

Name _____ Signature _____ Date _____

Position _____ Company _____

EPA

United States
Environmental Protection Agency
Washington, DC 20460

Form Approved.
OMB No.XXXXXX

Notification of Ownership Change for Underground Storage Tanks

Implementing Agency Name and Address:

IMPLEMENTING AGENCY USE ONLY
ID NUMBER:
DATE RECEIVED:
DATE ENTERED INTO COMPUTER:
DATA ENTRY CLERK INITIALS:
OWNER WAS CONTACTED TO CLARIFY RESPONSES, COMMENTS:

INSTRUCTIONS AND GENERAL INFORMATION

Please type or print in ink. Also, be sure you have signatures in ink.

The primary purpose of this notification form is to inform implementing agencies of ownership changes for underground storage tank (UST) systems that store or have stored petroleum or hazardous substances.

Federal regulation requires UST owners to notify the implementing agency of any ownership change for USTs storing regulated substances after [ENTER EFFECTIVE DATE OF RULE].

Who Must Notify? 40 CFR part 280, as amended, requires owners of USTs that store regulated substances (unless exempted) to notify implementing agencies of any ownership changes. Owner is defined as:

· In the case of an UST in use on November 8, 1984, or brought into use after that date, any person who owns an UST used for storage, use, or dispensing of regulated substances; or

· In the case of an UST in use before November 8, 1984, but no longer in use on that date, any person who owned the UST immediately before its discontinuation.

What USTs Are Included? An UST system is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and whose volume (including connected underground piping) is 10 percent or more beneath the ground. Regulated USTs store petroleum or hazardous substances (see "What Substances Are Covered").

When To Notify? Any owner or operator who assumes ownership of a regulated UST system must notify the implementing agency within 30 days of assuming such ownership.

What Tanks Are Excluded From Notification (see § 280.10 and § 280.12)?
- Tanks removed from the ground before May 8, 1986;
- Farm or residential tanks of 1,100 gallons or less capacity storing motor fuel for noncommercial purposes;
- Tanks storing heating oil for use on the premises where stored;
- Septic tanks;
- Certain pipeline facilities regulated under chapter 601 of Title 49;
- Surface impoundments, pits, ponds, or lagoons;
- Storm water or wastewater collection systems;
- Flow-through process tanks;
- Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- Tanks on or above the floor of underground areas, such as basements or tunnels;
- Tanks with a capacity of 110 gallons or less.

What Substances Are Covered? The notification requirements apply to USTs containing petroleum or certain hazardous substances. Petroleum includes gasoline, used oil, diesel fuel, crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). Hazardous substances are those found in Section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA.

Where To Notify? Send completed forms to:

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed $16,000 for each tank for which notification is not given or for which false information is given.

OWNERSHIP OF UST(s) Corporation, Individual, Public Agency, or Other Entity		**FACILITY NAME AND LOCATION OF UST(s)**
Current Owner Name	Previous Owner Name	Facility Name ☐ Check here if name changed after ownership Change
Address	Address	☐ Check this box if the physical address of the UST(s) is the same as the current owner address. If address is different, enter address below: If required by implementing agency, give the geographic location of UST(s) by degrees, minutes, and seconds. **Latitude** _____ **Longitude** _____
Phone	Phone	Date of Ownership Change

Signature of Current Owner: _____ Date: _____

Paperwork Reduction Act Notice
The public reporting and recordkeeping burden for this collection of information is estimated to average 10 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

BILLING CODE 6560–50–C

PART 281—APPROVAL OF STATE UNDERGROUND STORAGE TANK PROGRAMS

38. Revise Part 281 to read as follows:

PART 281—APPROVAL OF STATE UNDERGROUND STORAGE TANK PROGRAMS

Subpart A—Purpose, General Requirements and Scope

Sec.
281.10 Purpose.
281.11 General requirements.
281.12 Scope and definitions.

Subpart B—Components of a Program Application

Sec.
281.20 Program application.
281.21 Description of state program.
281.22 Procedures for adequate enforcement.
281.23 Memorandum of agreement.
281.24 Attorney General's statement.

Subpart C—Criteria for No Less Stringent

Sec.
281.30 New UST system design, construction, installation, and notification.
281.31 Upgrading existing UST systems.
281.32 General operating requirements.
281.33 Release detection.
281.34 Release reporting, investigation, and confirmation.
281.35 Release response and corrective action.
281.36 Out-of-service UST systems and closure.
281.37 Financial responsibility for UST systems containing petroleum.
281.38 Lender liability.
281.39 Operator training.

Subpart D—Adequate Enforcement of Compliance

Sec.
281.40 Requirements for compliance program and authority.
281.41 Requirements for enforcement authority.
281.42 Requirements for public participation.
281.43 Sharing of information.

Subpart E—Approval Procedures

Sec.
281.50 Approval procedures for state programs.
281.51 Revision of approved state programs.

Subpart F—Withdrawal of Approval of State Programs

Sec.
281.60 Criteria for withdrawal of approval of state programs.
281.61 Procedures for withdrawal of approval of state programs.

Authority: Sections 2002, 9004, 9005, 9006 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6912, 6991(c), (d), (e)).

Subpart A—Purpose, General Requirements and Scope

§ 281.10 Purpose.

(a) This part specifies the requirements that state programs must meet for approval by the Administrator under § 9004 of the Solid Waste Disposal Act, and the procedures EPA will follow in approving, revising and withdrawing approval of state programs.

(b) State submissions for program approval must be in accordance with the procedures set out in this part.

(c) A state may apply for approval under this part at any time after the promulgation of release detection, prevention, and corrective action regulations under § 9003 of the Solid Waste Disposal Act.

(d) Any state program approved by the Administrator under this part shall at all times be conducted in accordance with the requirements of this part.

§ 281.11 General Requirements.

(a) State Program Elements. The following substantive elements of a state program must be addressed in a state application for approval:

(1) Requirements for all existing and new underground storage tanks:

(i) New UST systems (design, construction, installation, and notification);

(ii) Upgrading of existing UST systems;

(iii) General operating requirements;

(iv) Release detection;

(v) Release reporting, investigation, and confirmation;

(vi) Out-of-service USTs and closure;

(vii) Release response and corrective action;

(viii) Financial responsibility for UST systems containing petroleum; and

(ix) Operator training.

(2) Provisions for adequate enforcement of compliance with the above program elements.

(b) Final Approval. The state must demonstrate that its requirements under each state program element for existing and new UST systems are no less stringent than the corresponding federal requirements as set forth in subpart C of this part. The state must also demonstrate that it has a program that provides adequate enforcement of compliance with these requirements.

(c) States with programs approved under this part are authorized to administer the state program in lieu of the federal program and will have primary enforcement responsibility with respect to the requirements of the approved program. EPA retains authority to take enforcement action in approved states as necessary and will notify the designated lead state agency of any such intended action.

§ 281.12 Scope and Definitions.

(a) Scope

(1) The Administrator may approve either partial or complete state programs. A ''partial'' state program regulates either solely UST systems containing petroleum or solely UST systems containing hazardous substances. If a ''partial'' state program is approved, EPA will administer the remaining part of the program. A ''complete'' state program regulates both petroleum and hazardous substance tanks.

(2) EPA will administer the UST program in Indian country, except where Congress has clearly expressed an intention to grant a state authority to regulate petroleum and hazardous substance USTs in Indian country. In either case, this decision will not impair a state's ability to obtain program approval for petroleum and/or hazardous substances in non-Indian country in accordance with this part.

(3) Nothing in this subpart precludes a state from:

(i) Adopting or enforcing requirements that are more stringent or more extensive than those required under this part; or

(ii) Operating a program with a greater scope of coverage than that required under this part. Where an approved state program has a greater scope of coverage than required by federal law, the additional coverage is not part of the federally-approved program.

(b) Definitions

(1) The definitions in part 280 apply to this entire part.

(2) For the purposes of this part the term ''final approval'' means the approval received by a state program that meets the requirements in § 281.11(b).

Subpart B—Components of a Program Application

§ 281.20 Program Application.

Any state that seeks to administer a program under this part must submit an application containing the following parts:

(a) A transmittal letter from the Governor of the state requesting program approval;

(b) A description in accordance with § 281.21 of the state program and operating procedures;

(c) A demonstration of the state's procedures to ensure adequate enforcement;

(d) A Memorandum of Agreement outlining roles and responsibilities of EPA and the implementing agency;

(e) An Attorney General's statement in accordance with § 281.25 certifying to applicable state authorities; and

(f) Copies of all applicable state statutes and regulations.

Note to § 281.20: EPA has designed an optional application form that is available for use by state applicants.

§ 281.21 Description of State Program.

A state seeking to administer a program under this part must submit a description of the program it proposes to administer under state law in lieu of the federal program. The description of a state's existing or planned program must include:

(a) The scope of the state program:

(1) whether the state program regulates UST systems containing petroleum or hazardous substances, or both;

(2) whether the state program is more stringent or broader in scope than the federal program, and in what ways; and

(3) whether the state has any existing authority over Indian lands or has existing agreements with Indian Tribes relevant to the regulation of underground storage tanks.

(b) The organization and structure of the state and local agencies with responsibility for administering the program. The jurisdiction and responsibilities of all state and local implementing agencies must be delineated, appropriate procedures for coordination set forth, and one state agency designated as a ''lead agency'' to facilitate communications between EPA and the state.

(c) Staff resources to carry out and enforce the required state program elements, both existing and planned, including the number of employees, agency where employees are located, general duties of the employees, and current limits or restrictions on hiring or utilization of staff.

(d) An existing state funding mechanism to meet the estimated costs of administering and enforcing the required state program elements, and any restrictions or limitations upon this funding.

§ 281.22 Procedures for Adequate Enforcement.

A state must submit a description of its compliance monitoring and enforcement procedures, including related state administrative or judicial review procedures.

§ 281.23 Memorandum of Agreement.

EPA and the approved state will negotiate a Memorandum of Agreement (MOA) containing proposed areas of coordination and shared responsibilities between the state and EPA and separate EPA and state roles and responsibilities in areas including, but not limited to: Implementation of partial state programs; enforcement; compliance monitoring; EPA oversight; and sharing and reporting of information. At the time of approval, the MOA must be signed by the Regional Administrator and the appropriate official of the state lead agency.

§ 281.24 Attorney General's Statement.

(a) A state must submit a written demonstration from the Attorney General that the laws and regulations of the state provide adequate authority to carry out the program described under § 281.21 and to meet other requirements of this part. This statement may be signed by independent legal counsel for the state rather than the Attorney General, provided that such counsel has full authority to independently represent the state Agency in court on all matters pertaining to the state program. This statement must include citations to the specific statutes, administrative regulations, and where appropriate, judicial decisions that demonstrate adequate authority to regulate and enforce requirements for UST systems. State statutes and regulations cited by the state Attorney General must be fully effective when the program is approved.

(b) If a state currently has authority over underground storage tank activities on Indian country, the statement must contain an appropriate analysis of the state's authority.

Subpart C—Criteria for No Less Stringent

§ 281.30 New UST System Design, Construction, Installation, and Notification.

In order to be considered no less stringent than the corresponding federal requirements for new UST system design, construction, installation, and notification, the state must have requirements that ensure all new underground storage tanks, and the attached piping in contact with the ground and used to convey the regulated substance stored in the tank, conform to the following:

(a) Be designed, constructed, and installed in a manner that will prevent releases for their operating life due to manufacturing defects, structural failure, or corrosion. Unless the state requires manufacturer and installer financial responsibility and installer certification in accordance with § 9003(i)(2) of the Solid Waste Disposal Act, then the state must meet the following:

(1) Tanks and piping replaced or installed after the state's submission of its state program approval or revision application must use interstitial monitoring within secondary containment in accordance with § 9003(i)(1) of the Solid Waste Disposal Act.

(2) Motor fuel dispenser systems installed and connected to an UST system after the state's submission of its state program approval or revisions application must be equipped with under-dispenser containment in accordance with § 9003(i)(1) of the Solid Waste Disposal Act.

Note to paragraph (a): Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate that the state program requirements are no less stringent in this area.;

(b) Be provided with equipment to prevent spills and tank overfills when new tanks are installed or existing tanks are upgraded, unless the tank does not receive more than 25 gallons at one time. Flow restrictors used in vent lines are not allowable forms of overfill prevention when overfill prevention is installed or replaced after the state applies for state program approval or revision.

(c) All UST system owners and operators must notify the implementing state agency of the existence of any new UST system and adequately notify the implementing state agency within a reasonable timeframe when assuming ownership of an UST system using a form designated by the state agency.

§ 281.31 Upgrading UST Systems.

In order to be considered no less stringent than the corresponding federal upgrading requirements, the state must have requirements that ensure UST systems installed prior to the state applying for state program approval or revision meet the requirements of § 281.30; are upgraded to prevent releases for their operating life due to corrosion, and spills, and overfills; or are permanently closed with the following exceptions:

(a) Upgrade Requirements for Previously Deferred UST Systems. Previously deferred wastewater treatment tank systems, airport hydrant fuel distribution systems, and UST systems with field-constructed tanks where installation commenced before the state's submission of its state program approval or revision application must, within three years of the effective date of this section, as amended, or prior to the state's

submission of its state program approval or revision application, whichever date is later, meet the requirements of § 281.30 or be permanently closed.

(b) Upgrade Requirements for Other UST Systems. States may allow UST systems to be upgraded if the state determines that the upgrade is appropriate to prevent releases for the operating life of the UST system due to corrosion and spill or overfills.

§ 281.32 General Operating Requirements.

In order to be considered no less stringent than the corresponding federal general operating requirements, the state must have requirements that ensure all new and existing UST systems conform to the following:

(a) Prevent spills and overfills by ensuring that the space in the tank is sufficient to receive the volume to be transferred and that the transfer operation is monitored constantly;

(b) Where equipped with cathodic protection, be operated and maintained by a person with sufficient training and experience in preventing corrosion, and in a manner that ensures that no releases occur during the operating life of the UST system;

Note to paragraph (b): Codes of practice developed by nationally-recognized organizations and national independent testing laboratories may be used to demonstrate the state program requirements are no less stringent.

(c) Be made of or lined with materials that are compatible with the substance stored;

(d) At the time of upgrade or repair, be structurally sound and upgraded or repaired in a manner that will prevent releases due to structural failure or corrosion during their operating lives;

(e) Have spill and overfill prevention equipment periodically tested in a manner and frequency that ensures its functionality for the operating life of the equipment and have the integrity of secondary containment periodically tested in a manner and frequency that prevents releases during the operating life of the UST system, except on equipment not required to be tested by 40 CFR part 280.

(f) Have operation and maintenance walkthrough inspections periodically conducted in a manner and frequency that ensures proper operation and maintenance for the operating life of the UST system.

(g) Have records of monitoring, testing, repairs, and operation and maintenance walkthrough inspections. These records must be made readily available when requested by the implementing agency.

§ 281.33 Release Detection.

In order to be considered no less stringent than the corresponding federal requirements for release detection, the state must have requirements that at a minimum ensure all UST systems are provided with release detection that conforms to the following:

(a) General Methods. Release detection requirements for owners and operators must consist of a method, or combination of methods, that is:

(1) Capable of detecting a release of the regulated substance from any portion of the UST system that routinely contains regulated substances—as effectively as any of the methods allowed under the federal technical standards—for as long as the UST system is in operation. In comparing methods, the implementing agency shall consider the size of release that the method can detect and the speed and reliability with which the release can be detected.

(2) Designed, installed, calibrated, operated and maintained so that releases will be detected in accordance with the capabilities of the method;

(3) Operated and maintained, and electronic and mechanical components are tested periodically, in a manner and frequency that ensures proper operation to detect releases for the operating life of the release detection equipment.

(b) Phase-in of requirements. Release detection requirements must, at a minimum, be applied at all UST systems, except for UST systems previously deferred under § 280.10(a)(1), prior to the state's submission of its state program approval or revision application. Release detection requirements must, at a minimum, be scheduled to be applied to previously deferred UST systems as follows:

(1) Immediately when a new previously deferred UST system is installed, and

(2) For any wastewater treatment tank system, airport hydrant fuel distribution system, or UST system with field constructed tanks installed prior to the state's submission of its state program approval or revision application, within three years of the effective date of this section, as amended, or prior to the state's submission of its state program approval or revision application, whichever date is later.

(3) For any UST system that stores fuel solely for the use of emergency power generators that was installed prior to the state's submission of its state program approval or revision application, within one year of the effective date of this section, as amended, or prior to the state's submission of its state program approval or revision application, whichever date is later.

(c) Requirements for Petroleum Tanks. All petroleum tanks must meet the following requirements:

(1) All petroleum tanks must be sampled, tested, or checked for releases at least monthly, except that tanks (that is, tanks and piping protected from releases due to corrosion and equipped with both spill and overfill prevention devices) installed prior to the state's submission of its State Program Approval or revision application may temporarily use monthly inventory control (or its equivalent) in combination with tightness testing (or its equivalent) conducted every five years for the first 10 years after the tank is installed; and

(2) New or replaced petroleum tanks must use interstitial monitoring within secondary containment in accordance with § 9003(i)(1) of the Solid Waste Disposal Act except when the state requires manufacturer and installer financial responsibility and installer certification in accordance with § 9003(i)(2) of the Solid Waste Disposal Act.

(d) Requirements for Petroleum Piping. All underground piping attached to the tank that routinely conveys petroleum must conform to the following:

(1) If the petroleum is conveyed under greater than atmospheric pressure:

(i) The piping must be equipped with release detection that detects a release within an hour by restricting or shutting off flow or sounding an alarm; and

(ii) The piping must have monthly monitoring applied or annual tightness tests conducted.

(2) If suction lines are used:

(i) Tightness tests must be conducted at least once every 3 years, unless a monthly method of detection is applied to this piping; or

(ii) The piping is designed to allow the contents of the pipe to drain back into the storage tank if the suction is released and is also designed to allow an inspector to immediately determine the integrity of the piping system.

(3) New or replaced petroleum piping must use interstitial monitoring within secondary containment in accordance with § 9003(i)(1) of the Solid Waste Disposal Act except when the state requires evidence of financial responsibility and certification in accordance with § 9003(i)(2) of the Solid Waste Disposal Act.

(e) Requirements for Hazardous Substance UST Systems. All hazardous substance UST systems must use interstitial monitoring within secondary containment of the tanks and the attached underground piping that conveys the regulated substance stored in the tank. For hazardous substance UST systems installed prior to the state's submission of its state program

approval or revision application, owners and operators can use another form of release detection if the owner and operator can demonstrate to the state (or the state otherwise determines) that another method will detect a release of the regulated substance as effectively as other methods allowed under the state program for petroleum UST systems and that effective corrective action technology is available for the hazardous substance being stored that can be used to protect human health and the environment.

§ 281.34 Release Reporting, Investigation and Confirmation.

In order to be considered no less stringent than the corresponding federal requirements for release reporting, investigation, and confirmation, the state must have requirements that ensure all owners and operators conform with the following:

(a) Promptly investigate all suspected releases, including:

(1) When unusual operating conditions, release detection signals and environmental conditions at the site suggest a release of regulated substances may have occurred or the interstitial space may have been compromised; and

(2) When required by the implementing agency to determine the source of a release having an impact in the surrounding area; and

(b) Promptly report all confirmed underground releases and any spills and overfills that are not contained and cleaned up.

(c) Ensure that all owners and operators contain and clean up unreported spills and overfills in a manner that will protect human health and the environment.

§ 281.35 Release Response and Corrective Action.

In order to be considered no less stringent than the corresponding federal requirements for release response and corrective action, the state must have requirements that ensure:

(a) All releases from UST systems are promptly assessed and further releases are stopped;

(b) Actions are taken to identify, contain and mitigate any immediate health and safety threats that are posed by a release (such activities include investigation and initiation of free product removal, if present);

(c) All releases from UST systems are investigated to determine if there are impacts on soil and ground water, and any nearby surface waters. The extent of soil and ground-water contamination must be delineated when a potential threat to human health and the environment exists.

(d) All releases from UST systems are cleaned up through soil and ground water remediation and any other steps, as necessary to protect human health and the environment;

(e) Adequate information is made available to the state to demonstrate that corrective actions are taken in accordance with the requirements of paragraphs (a) through (d) of this section. This information must be submitted in a timely manner that demonstrates its technical adequacy to protect human health and the environment; and

(f) In accordance with § 280.67, the state must notify the affected public of all confirmed releases requiring a plan for soil and ground water remediation, and upon request provide or make available information to inform the interested public of the nature of the release and the corrective measures planned or taken.

§ 281.36 Out-of-Service UST Systems and Closure.

In order to be considered no less stringent than the corresponding federal requirements for temporarily closed UST systems and permanent closure, the state must have requirements that ensure UST systems conform with the following:

(a) Removal from Service. All new and existing UST systems temporarily closed must:

(1) Continue to comply with general operating requirements, release reporting and investigation, and release response and corrective action;

(2) Continue to comply with release detection requirements if regulated substances are stored in the tank;

(3) Be closed off to outside access; and

(4) Be permanently closed if the UST system has not been protected from corrosion and has not been used in one year, unless the state approves an extension after the owner and operator conducts a site assessment.

(b) Permanent Closure of UST Systems. All tanks and piping must be cleaned and permanently closed in a manner that eliminates the potential for safety hazards and any future releases. The owner or operator must notify the state of permanent UST system closures. The site must also be assessed to determine if there are any present or were past releases, and if so, release response and corrective action requirements must be complied with.

(c) All UST systems taken out of service before the effective date of the federal regulations must permanently close in accordance with paragraph (b) of this section when directed by the implementing agency.

§ 281.37 Financial Responsibility for UST Systems Containing Petroleum.

(a) In order to be considered no less stringent than the federal requirements for financial responsibility for UST systems containing petroleum, the state requirements for financial responsibility for petroleum UST systems must ensure that:

(1) Owners and operators have $1 million per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(2) Owners and operators not engaged in petroleum production, refining, and marketing and who handle a throughput of 10,000 gallons of petroleum per month or less have $500,000 per occurrence for corrective action and third-party claims in a timely manner to protect human health and the environment;

(3) Owners and operators of 1 to 100 petroleum USTs must have an annual aggregate of $1 million; and

(4) Owners and operators of 101 or more petroleum USTs must have an annual aggregate of $2 million.

(b) States may allow the use of a wide variety of financial assurance mechanisms to meet this requirement. Each financial mechanism must meet the following criteria in order to be no less stringent than the federal requirements. The mechanism must: Be valid and enforceable; be issued by a provider that is qualified or licensed in the state; not permit cancellation without allowing the state to draw funds; ensure that funds will only and directly be used for corrective action and third party liability costs; and require that the provider notify the owner or operator of any circumstances that would impair or suspend coverage.

(c) States must require owners and operators to maintain records that demonstrate compliance with the state financial responsibility requirements, and these records must be made readily available when requested by the implementing agency.

§ 281.38 Lender Liability.

(a) A state program that contains a security interest exemption will be considered to be no less stringent than, and as broad in scope as, the federal program provided that the state's exemption:

(1) Mirrors the security interest exemption provided for in 40 CFR part 280, subpart I; or

(2) Achieves the same effect as provided by the following key criteria:

(i) A holder, meaning a person who maintains indicia of ownership primarily to protect a security interest in

a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located, who does not participate in the management of the UST or UST system as defined under § 280.10 of this chapter, and who does not engage in petroleum production, refining, and marketing as defined under § 280.200(b) of this chapter is not:

(A) An ''owner'' of a petroleum UST or UST system or facility or property on which a petroleum UST or UST system is located for purposes of compliance with the requirements of 40 CFR part 280; or

(B) An ''operator'' of a petroleum UST or UST system for purposes of compliance with the requirements of 40 CFR part 280, provided the holder is not in control of or does not have responsibility for the daily operation of the UST or UST system.

(ii) [Reserved]

(b) [Reserved]

§ 281.39 Operator Training.

In order to be considered no less stringent than the corresponding federal requirements for operator training, the state must have an operator training program that meets the minimum requirements of § 9010 of the Solid Waste Disposal Act.

Subpart D—Adequate Enforcement of Compliance

§ 281.41 Requirements for Enforcement Authority.

(a) Any state agency administering a program must have the authority to implement the following remedies for violations of state program requirements:

(1) To restrain immediately and effectively any person by order or by suit in state court from engaging in any unauthorized activity that is endangering or causing damage to public health or the environment;

(2) To sue in courts of competent jurisdiction to enjoin any threatened or continuing violation of any program requirement;

(3) To assess or sue to recover in court civil penalties as follows:

(i) Civil penalties for failure to notify or for submitting false information pursuant to tank notification requirements must be capable of being assessed up to $5,000 or more per violation.

(ii) Civil penalties for failure to comply with any state requirements or standards for existing or new tank systems must be capable of being assessed for each instance of violation, up to $5,000 or more for each tank for each day of violation. If the violation is continuous, civil penalties shall capable of being assessed up to $5,000 or more for each day of violation.

(4) To prohibit the delivery, deposit, or acceptance of a regulated substance into an underground storage tank identified by the state to be ineligible for such delivery, deposit, or acceptance in accordance with § 9012 of the Solid Waste Disposal Act.

(b) The burden of proof and degree of knowledge or intent required under state law for establishing violations under paragraph (a)(3) of this section, must be no greater than the burden of proof or degree of knowledge or intent that EPA must provide when it brings an action under Subtitle I of the Solid Waste Disposal Act.

(c) A civil penalty assessed, sought, or agreed upon by the state enforcement agency(ies) under paragraph (a)(3) of this section must be appropriate to the violation.

§ 281.42 Requirements for Public Participation.

Any state administering a program must provide for public participation in the state enforcement process by providing any one of the following three options:

(a) Authority that allows intervention analogous to Federal Rule 24(a)(2), and assurance by the appropriate state enforcement agency that it will not oppose intervention under the state analogue to Rule 24(a)(2) on the ground that the applicant's interest is adequately represented by the State.

(b) Authority that allows intervention as of right in any civil action to obtain the remedies specified in 281.41 by any citizen having an interest that is or may be adversely affected; or

(c) Assurance by the appropriate state agency that:

(1) It will provide notice and opportunity for public comment on all proposed settlements of civil enforcement actions (except where immediate action is necessary to adequately protect human health and the environment);

(2) It will investigate and provide responses to citizen complaints about violations; and

(3) It will not oppose citizen intervention when permissive intervention is allowed by statute, rule, or regulation.

§ 281.43 Sharing of Information.

(a) States with approved programs must furnish EPA, upon request, any information in state files obtained or used in the administration of the state program. This information includes:

(1) Any information submitted to the state under a claim of confidentiality. The state must submit that claim to EPA when providing such information. Any information obtained from a state and subject to a claim of confidentiality will be treated in accordance with federal regulations in 40 CFR part 2; and

(2) Any information that is submitted to the state without a claim of confidentiality. EPA may make this information available to the public without further notice.

(b) EPA must furnish to states with approved programs, upon request, any information in EPA files that the state needs to administer its approved state program. Such information includes:

(1) Any information that is submitted to EPA without a claim of confidentiality; and

(2) Any information submitted to EPA under a claim of confidentiality, subject to the conditions in 40 CFR part 2.

Subpart E—Approval Procedures

§ 281.50 Approval Procedures for State Programs.

(a) The following procedures are required for all applications, regardless of whether the application is for a partial or complete program, as defined in § 281.12, or final approval in accordance with § 281.11.

(b) Before submitting an application to EPA for approval of a state program, the state must provide an opportunity for public notice and comment in the development of its underground storage tank program.

(c) When EPA receives a state program application, EPA will examine the application and notify the state whether its application is complete, in accordance with the application components required in § 281.20. The 180-day statutory review period begins only after EPA has determined that a complete application has been received.

(d) The state and EPA may by mutual agreement extend the review period.

(e) After receipt of a complete program application, the Administrator will tentatively determine approval or disapproval of the state program. EPA shall issue public notice of the tentative determination in the **Federal Register**; in enough of the largest newspapers in the state to attract statewide attention; and to persons on the state agency mailing list and any other persons who the agency has reason to believe are interested. Notice of the tentative determination must also:

(1) Afford the public 30 days after the notice to comment on the state's application and the Administrator's tentative determination; and

(2) Include a general statement of the areas of concern, if the Administrator indicates the state program may not be approved; and

(3) Note the availability for inspection by the public of the state program application; and

(4) Indicate that a public hearing will be held by EPA no earlier than 30 days after notice of the tentative determination unless insufficient public interest is expressed, at which time the Regional Administrator may cancel the public hearing.

(f) Within 180 days of receipt of a complete state program application, the Administrator must make a final determination whether to approve the state program after review of all public comments. EPA will give notice of its determination in the **Federal Register** and codify the approved state program. The notice must include a statement of the reasons for this determination and a response to significant comments received.

§ 281.51 Revision of Approved State Programs.

(a) Either EPA or the approved state may initiate program revision. Program revision may be necessary when the controlling federal or state statutory or regulatory authority is changed or when responsibility for the state program is shifted to a new agency or agencies. The state must inform EPA of any proposed modifications to its basic statutory or regulatory authority or change in division of responsibility among state agencies. EPA will determine in each case whether a revision of the approved program is required. Approved state programs must submit a revised application within three years of any changes to this part that requires a program revision.

(b) Whenever the Administrator has reason to believe that circumstances have changed with respect to an approved state program or the federal program, the Administrator may request, and the state must provide, a revised application as prescribed by EPA.

(c) The Administrator will approve or disapprove program revisions based on the requirements of this part and of Subtitle I pursuant to the procedures under this section, or under § 281.50 if EPA has reason to believe the proposed revision will receive significant negative comment from the public.

(1) The Administrator must issue public notice of planned approval or disapproval of a state program revision in the **Federal Register**; in enough of the largest newspapers in the state to attract statewide attention; and by mailing to persons on the state agency mailing list and to any other persons who the agency has reason to believe are interested. The public notice must summarize the state program revision, indicate whether EPA intends to approve or disapprove the revision, and provide for an opportunity to comment for a period of 30 days.

(2) The Administrator's decision on the proposed revision becomes effective 60 days after the date of publication in the **Federal Register** in accordance with paragraph (c)(1) of this section, unless significant negative comment opposing the proposed revision is received during the comment period. If significant negative comment is received, EPA must notify the state and within 60 days after the date of publication, publish in the **Federal Register** either:

(i) A withdrawal of the immediate final decision, which will then be treated as a tentative decision in accordance with the applicable procedures of § 281.50(e) and (f); or

(ii) A notice that contains a response to significant negative comments and affirms either that the immediate final decision takes effect or reverses the decision.

(d) Revised state programs that receive approval must be codified in the **Federal Register**.

Subpart F—Withdrawal of Approval of State Programs

§ 281.60 Criteria for Withdrawal of Approval of State Programs.

The Administrator may withdraw program approval when the Agency determines that a state no longer has adequate regulatory or statutory authority or is not administering and enforcing an approved program in accordance with this part. The state must have adequate capability to administer and enforce the state program. In evaluating whether such capability exists, the Agency will consider whether the state is implementing an adequate enforcement program by evaluating the quality of compliance monitoring and enforcement actions.

§ 281.61 Procedures for Withdrawal of Approval of State Programs.

(a) The following procedures apply when a state with an approved program voluntarily transfers to EPA those program responsibilities required by federal law.

(1) The state must give EPA notice of the proposed transfer, and submit, at least 90 days before the transfer, a plan for the orderly transfer of all relevant program information necessary for EPA to administer the program.

(2) Within 30 days of receiving the state's transfer plan, EPA must evaluate the plan and identify any additional information needed by the federal government for program administration.

(3) At least 30 days before the transfer is to occur, EPA must publish notice of the transfer in the **Federal Register**; in enough of the largest newspapers in the state to attract statewide attention; and to persons on appropriate state mailing lists.

(b) The following procedures apply when the Administrator considers withdrawing approval.

(1) When EPA begins proceedings to determine whether to withdraw approval of a state program (either on its own initiative or in response to a petition from an interested person), withdrawal proceedings will be conducted in accordance with procedures set out in 40 CFR 271.23(b) and (c), except for § 271.23(b)(8)(iii) to the extent that it deviates from requirements under § 281.60.

(2) If the state fails to take appropriate action within a reasonable time, not to exceed 120 days after notice from the Administrator that the state is not administering and enforcing its program in accordance with the requirements of this part, EPA will withdraw approval of the state's program.

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