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and experience in preventing corrosion, and in a manner that ensures that no releases occur during the operating life of the UST system;

NOTE: 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 records of monitoring, testing, repairs, and closure maintained that are sufficient to demonstrate recent facility compliance status, except that records demonstrating compliance with repair and upgrading requirements must be maintained for the remaining operating life of the facility. 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.
- (b) *Phase-in of requirements*. Release detection requirements must, at a min-

imum, be scheduled to be applied at all UST systems:

- (1) Immediately when a new UST system is installed:
- (2) On an orderly schedule that completes a phase-in of release detection at all existing UST systems (or their closure) before December 21, 1993, except that release detection for the piping attached to any existing UST that conveys a regulated substance under greater than atmospheric pressure must be phased-in before December 22, 1990
- (c) Requirements for petroleum tanks. All petroleum tanks must be sampled, tested, or checked for releases at least monthly, except that:
- (1) New or upgraded tanks (that is, tanks and piping protected from releases due to corrosion and equipped with both spill and overfill prevention devices) may temporarily use monthly inventory control (or its equivalent) in combination with tightness testing (or its equivalent) conducted every 5 years for the first 10 years after the tank is installed or upgraded or until December 22, 1998, whichever is later; and
- (2) Existing tanks unprotected from releases due to corrosion or without spill and overfill prevention devices may use monthly inventory control (or its equivalent) in combination with annual tightness testing (or its equivalent) until December 22, 1998.
- (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.

- (e) Requirements for hazardous substance UST systems. All UST systems storing hazardous substances must meet the following:
- (1) All existing hazardous substance UST systems must comply with all the requirements for petroleum UST systems in paragraphs (c) and (d) of this section and after December 22, 1998, they must comply with the following paragraph (e)(2) of this section.
- (2) All new 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, unless 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 environ-

§ 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; 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