

1301:7-9-08      **Operating requirements for UST systems.**

(A) Purpose and scope.

For the purpose of prescribing rules pursuant to section 3737.88 of the Revised Code, the fire marshal hereby adopts this rule to establish operating requirements for underground storage tanks containing petroleum or other regulated substances. This rule is adopted by the fire marshal in accordance with Chapter 119. of the Revised Code and shall not be considered a part of the "Ohio Fire Code." The following UST systems are exempted from this rule:

- (1) Wastewater treatment tank systems;
- (2) Any UST systems containing radioactive material that are regulated under the Atomic Energy Act of 1954 (42 U.S.C.A. 2014 and following);
- (3) Any UST system that is part of an emergency generator system at nuclear power generation facilities regulated by the United States nuclear regulatory commission;
- (4) Airport hydrant fuel distribution systems; and
- (5) UST systems with field constructed tanks.

(B) Operation of spill and overfill prevention control.

All owners and operators shall maintain and operate spill and overfill prevention equipment in accordance with paragraph (B) of this rule and shall document their actions on a form prescribed by the fire marshal in accordance with paragraph (G)(1) of this rule.

- (1) Owners and operators of all UST systems shall ensure that releases due to spilling or overfilling do not occur. The owner and operator shall ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.
- (2) The owner and operator of all UST systems shall report, investigate and clean up any spills and overfills in compliance with section 3737.88 and 3737.882 of the Revised Code and this chapter of the Administrative Code.
- (3) Owners and operators shall visually inspect all spill prevention equipment after each delivery and shall promptly remove and properly dispose of any water, regulated substances or debris from the spill prevention equipment.
- (4) Owners and operators shall inspect all spill and overfill prevention equipment annually for proper operation and evidence of deterioration.

(C) Operation and maintenance of corrosion protection.

All owners and operators shall maintain and operate corrosion protection equipment in accordance with paragraph (C) of this rule and shall document their actions on a form prescribed by the fire marshal in accordance with paragraph (G)(1) of this rule.

- (1) All corrosion protection systems shall be operated and maintained to continuously provide corrosion protection to the metal components of those portion of the tank and piping that routinely contain regulated substances and are in contact with the ground.
- (2) All UST systems equipped with cathodic protection systems shall be inspected for proper operation by a qualified cathodic protection tester in compliance with the following requirements:
  - (a) All cathodic protection systems shall be tested within six months of installation and at least every three years thereafter; and
  - (b) The criteria to determine that cathodic protection is adequate shall be pursuant to "National Association of Corrosion Engineers Standard RP-0285-02; Corrosion Control of Underground Storage Tank Systems by Cathodic Protection".
- (3) UST systems with impressed current cathodic protection systems shall be inspected every sixty days by the owner or operator to ensure that the equipment is operating properly.
- (4) For UST systems using cathodic protection, records of the inspections of the cathodic protection system shall be maintained in compliance with this chapter to demonstrate compliance with the standards in paragraphs (C)(1) to (C)(3) of this rule. These records shall provide the following:
  - (a) The results of the last six inspections required by paragraph (C)(3) of this rule; and
  - (b) The results of testing from the last two inspections required in paragraph (C)(2)(a) of this rule.
- (5) UST systems internally lined to meet cathodic protection requirements or as part of a major repair or modification shall be maintained in accordance with the following:
  - (a) Within ten years after lining, and every five years thereafter, the lined tank shall be internally inspected to determine if it is structurally sound with the lining still performing in accordance with "American Petroleum Institute Publication 1631-01; Interior Lining and Period Inspection of Underground Storage Tanks".
    - (i) Internal inspections shall be performed by a person listed by the fire marshal to provide UST lining services.
    - (ii) A modification permit shall be obtained prior to performing work in accordance with paragraph (C)(5)(a) of this rule.
    - (iii) Video camera inspections shall not be used to meet the requirements of paragraph (C)(5)(a) of this rule.
  - (b) Any UST system internally lined that fails to meet the criteria described in paragraph (C)(5)(a) of this rule shall be removed in accordance with rule 1301:7-9-12 of the Administrative Code unless owner and operators obtain written approval from the fire marshal to modify or repair the internally lined UST system. Owners and operators shall comply with any conditions imposed by the fire marshal on the use of internal lining.

(c) UST systems internally lined that also have cathodic protection that meets the requirements of paragraphs (B)(1)(b) of rule 1301:7-9-06 of the Administrative Code and are in compliance with paragraphs (C)(1) to (C)(4)(b) of this rule do not have to comply with paragraph (C)(5)(a) of this rule.

(6) All corrosion protection systems on UST systems shall be installed, operated and maintained in a manner that minimizes any adverse effects on adjacent underground metallic structures, including but not limited to, natural gas pipe lines, telecommunication cables and water and sewage pipelines. If at any time a corrosion protection system on an UST system is believed to have adversely affected an adjacent underground metallic structure, owners and operators shall immediately participate in the testing and remediation of any such adverse effects.

(D) Operation and maintenance of USTs and piping.

All owners and operators shall maintain and operate USTs and piping in accordance with paragraph (D) of this rule and shall document their actions on a form prescribed by the fire marshal in accordance with paragraph (G)(1) of this rule.

(1) Owners and operators shall use UST system components that are compatible with the regulated substance stored in the UST system.

(2) If the UST system is used to store alcohol blends, the owner and operator shall ensure compatibility by complying with the following applicable standards:

(a) "American Petroleum Institute Publication 1626-2000; Storing and Handling Ethanol and Gasoline-ethanol Blends at Distribution Terminals and Service Stations"; and

(b) "American Petroleum Institute Publication 1627-2000; Storage and Handling of Gasoline-methanol/cosolvent Blends at Distribution Terminals and Service Stations."

(3) Owners and operators shall inspect all accessible UST and piping components at least once a year for evidence of degradation including but not limited to:

(a) Any visible corrosion, peeling, cracking or excessive distortion of the UST and piping components, and

(b) Indirect evidence of degradation, including but not limited to clogged filters or sludge buildup in UST and piping.

(E) Operation of submersible and dispenser containment equipment.

All owners and operators shall maintain containment equipment in accordance with paragraph (E) of this rule and shall document their actions on a form prescribed by the fire marshal in accordance with paragraph (G)(1) of this rule.

(1) All containments shall be inspected at least once a year for proper operation and for the presence of water, regulated substances and debris in accordance with the following:

(a) Containments shall be inspected for evidence of excessive distortion, cracking or gross failure of the containments and any penetration fittings;

- (b) All water and debris shall be removed and properly disposed; and
  - (c) All regulated substances shall be removed and properly disposed.
- (2) The following containment equipment shall be tested for tightness no later than December 31, 2005, and every three years thereafter, in accordance with paragraph (F)(3)(b) of rule 1301:7-9-07 of the Administrative Code:
- (a) New containment equipment installed in accordance with paragraph (B)(3) of rule 1301:7-9-06 of the Administrative Code;
  - (b) All containment equipment associated with UST systems containing hazardous substances pursuant to rule 1301:7-9-03 of the Administrative Code; and
  - (c) All containment equipment associated with UST systems that were installed in areas designated as sensitive areas after the effective dates listed in paragraphs (C) to (E) of rule 1301:7-9-09 of the Administrative Code.
- (3) A release is suspected and subject to the reporting requirements of sections 3737.88 and 3737.882 of the Revised Code and this chapter of the Administrative Code if any regulated substance has collected in the containment system and risen to a level above the lowest penetration in the containment system or if any regulated substance escapes from the containment system.

(F) Operation of release detection components.

All owners and operators shall maintain and operate release detection equipment in accordance with paragraph (F) of this rule and shall document their actions on a form prescribed by the fire marshal in accordance with paragraph (G)(1) of this rule.

- (1) Owners and operators shall maintain daily product inventory control or some other acceptable monitoring method as required in paragraph (B)(2) of rule 1301:7-9-07 of the Ohio Administrative Code.
- (2) Owners and operators using a release detection method required by paragraph (B) or (C) of rule 1301:7-9-07 of the Administrative Code shall inspect the release detection method each month to confirm that the release detection method has produced a passing result or is a continuously operating device and has not indicated that a release has occurred.
- (3) A release is suspected and subject to the reporting requirements of sections 3737.88 and 3737.882 of the Revised Code and this chapter of the Administrative Code if a release detection method required by paragraph (B) or (C) of rule 1301:7-9-07 of the Administrative Code fails to achieve a passing result or goes into alarm.
- (4) All release detection methods for piping and containment systems described in rule 1301:7-9-07 of the Administrative Code shall be inspected to confirm proper operation in accordance with the following:
  - (a) Automatic line leak detectors shall be tested annually in accordance with paragraph (F)(3)(a) of rule 1301:7-9-07 of the Administrative Code; and

- (b) Underground piping that conveys regulated substances under pressure shall meet one of the following:
  - (i) Have an annual tightness test conducted in compliance with paragraph (F)(2) of rule 1301:7-9-07 of the Administrative Code; or
  - (ii) Have a monthly tightness test conducted by the on-site electronic line testing unit provided that the unit can detect a two-tenth of a gallon per hour leak rate at operating pressure.
- (c) Underground piping that conveys regulated substances under suction shall meet one of the following:
  - (i) Have a tightness test conducted every thirty-six month period in compliance with paragraph (F)(2) of rule 1301:7-9-07 of the Administrative Code; or
  - (ii) Demonstrate compliance with paragraph (B)(3)(b) of rule 1301:7-9-07 of the Administrative Code.
- (5) All release detection methods for hazardous substance UST systems and UST systems located in sensitive areas as described in paragraph (C) of rule 1301:7-9-07 of the Administrative Code shall be inspected annually to confirm proper operation in accordance with the following:
  - (a) UST systems with interstitial monitoring shall be maintained in accordance with the manufacturer's requirements;
  - (b) Automatic line leak detectors shall be tested annually in accordance with paragraph (F)(3)(a) of rule 1301:7-9-07 of the Administrative Code. Automatic line leak detectors that are part of UST systems located in sensitive areas shall also be inspected to confirm the automatic line leak detector's ability to prevent more than one attempt by the operator to restart the flow of regulated substance in compliance with the manufacturer's requirements;
  - (c) All underground piping that routinely contains regulated substances shall have an annual tightness test pursuant to paragraph (F)(2) of rule 1301:7-9-07 of the Administrative Code;
  - (d) Containment systems with liquid sensors shall be inspected annually in accordance with the manufacturer's requirements; and
  - (e) UST systems that were installed in areas designated as sensitive areas prior to the effective dates listed in paragraphs (C) to (E) of rule 1301:7-9-09 of the Administrative Code, shall be monitored in accordance with paragraphs (F)(4) and (F)(6) of this rule.
- (6) All release detection methods for UST systems described in paragraphs (D)(2) to (D)(4)(b) of rule 1301:7-9-07 of the Administrative Code shall be evaluated annually to confirm proper operation in accordance with the following:
  - (a) Equipment for automatic tank gauging and interstitial monitoring shall be maintained in accordance with the manufacturer's requirements.

- (b) Equipment for any other alternative method approved in writing by the fire marshal shall be maintained in accordance with the manufacturer's requirements and any other requirements imposed by the fire marshal.
- (7) All release detection methods described in paragraphs (F)(4) to (F)(6) of this rule shall be evaluated for proper operation by a person who is:
- (a) Recognized by the manufacturer of the release detection method to be proficient in the evaluation of the release detection method;
  - (b) Recognized by an accredited third party to be proficient in the evaluation of the release detection method; or
  - (c) Recognized by the fire marshal as proficient in the evaluation of the release detection method.
- (G) Record keeping and performance requirements.
- (1) The fire marshal shall prescribe a form that documents the steps taken by owners and operators to comply with the reporting requirements defined in this rule.
- (a) Owners and operators shall accurately complete the form starting no later than January 1, 2006, and annually thereafter.
  - (b) Owners and operators shall maintain the form at the facility or at some other secure location for at least five years.
  - (c) Owners and operators shall make the form available to the fire marshal within twenty-four hours of a request by the fire marshal.
  - (d) In the event of a transfer of ownership of any UST system, the transferor shall give completed copies of the form to the transferee within thirty days of the transfer.
- (2) Any person performing work in accordance with this rule shall obtain a permit as required in paragraph (C) of rule 1301:7-9-10 of the Administrative Code prior to performing the work. All work performed in accordance with this rule shall be overseen by a certified UST installer and a certified UST inspector as required in paragraph (D) of rule 1301:7-9-10 of the Administrative Code.
- (a) Any UST system component found not to be operating properly shall undergo routine maintenance or modification, as appropriate, to prevent the UST system from releasing a regulated substance.
  - (b) Any UST system component found not to be operating properly that has caused or contributed to a release shall undergo major repair to prevent any further releases.
- (3) All work performed in accordance with this rule shall comply with the applicable requirements of this rule, paragraph (E)(1) of rule 1301:7-9-06 of the Administrative Code and with paragraphs (B)(5) and (F)(5) of rule 1301:7-9-07 of the Administrative Code.

- (4) Other operating requirements and methods may be used in place of any requirements or methods described in this rule if an owner and operator demonstrates that the alternative method is no less protective of human health and the environment than the method or requirement specified in this rule, and the fire marshal approves the alternative method in writing prior to the use of the method. If the alternative method is approved, the owner and operator shall comply with any terms and conditions imposed on its use by the fire marshal.

**HISTORY: Eff 6-6-85; 5-9-88; 11-5-90; 1-1-97; 3-31-99; 3-1-05; 12-31-05**

Rule promulgated under: RC 119.03

Rule authorized by: RC 3737.88

Rule amplifies: RC 3737.88

R.C. 119.032 review dates: 12/31/2010