

This is an amendment to 20.5.4 NMAC, Sections 3, 15, 19, 25, 26, 29, 32, 33, 35 and 38, effective March 17, 2012.

20.5.4.3 STATUTORY AUTHORITY: This part is promulgated pursuant to the provisions of the Hazardous Waste Act, NMSA 1978, Sections 74-4-1 through 74-4-14, and the general provisions of the Environmental Improvement Act, NMSA 1978, Sections 74-1-1 through ~~[74-1-15]~~ 74-1-17.
[20.5.4.3 NMAC - Rp, 20.5.4.3 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.15 SECONDARY CONTAINMENT FOR UST SYSTEMS:

- A. After April 4, 2008 owners and operators shall install secondary containment:
- (1) for any new or replaced UST system ~~[(including dispensers and piping)]~~;
 - (2) for any new or replaced dispenser system, except for the installation of a motor fuel dispenser installed separately from the equipment needed to connect the dispenser to a storage tank system; and
 - (3) for any UST ~~[dispenser or]~~ piping replaced after April 4, 2008.
- ~~[(4)]~~**B.** Owners and operators shall design, provide project drawings for, and construct the entire new UST system with the secondary containment system in compliance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory approved in advance by the department. The secondary containment system shall include all tanks, piping, ~~[dispensers]~~ dispenser systems, and all containment sumps for any piping and ancillary equipment that routinely contains regulated substances, and shall include interstitial monitoring that meets the requirements of 20.5.6 NMAC.
- ~~[(2)]~~**C.** If owners and operators:
- (1) replace a UST, they shall install a double-walled tank with an inner and outer barrier and a release detection system that meets the requirements of 20.5.6 NMAC;
 - ~~[(3)]~~(2) ~~[If owners and operators]~~ replace a dispenser system, they shall install, in accordance with manufacturer's recommendations, an under-dispenser containment system that shall be hydrostatically tested and approved by the department prior to use; types of under-dispenser containment systems include, but are not limited to, dispenser liners, containment sumps, dispenser pans and dispenser sump liners; or
 - ~~[(4)]~~(3) ~~[If owners and operators]~~ replace piping, they shall install only double-walled piping with an inner and outer barrier and a release detection system that meets the requirements of 20.5.6 NMAC for the replaced piping.
- ~~[(5)]~~**D.** The following may be used to comply with secondary containment requirements:
- ~~[(a)]~~(1) petroleum equipment institute publication RP100, "*recommended practices for installation of underground liquid storage systems*;" or
 - ~~[(b)]~~(2) American petroleum institute publication RP 1615, "*installation of underground petroleum storage systems*."
- ~~[B-]~~**E.** The department shall not require owners and operators to install secondary containment required in this section if the owners and operators demonstrate to the department's satisfaction that no part of the UST system is within 1,000 feet of a community water system, potable drinking water well, or source water.
- (1) In advance of construction or replacement, owners and operators shall submit in advance of construction or replacement, for approval by the department, a detailed to-scale map of the proposed UST system that demonstrates that no part of the UST system is within 1,000 feet of any existing community water system, any existing potable drinking water well, any potable drinking water well the owner or operator plans to install at the facility, or any source water.
 - (2) The map shall be accompanied by a certified statement by owners and operators explaining who researched the existence of community water systems, potable drinking water wells, and source water; how the research was conducted; and how the proposed UST system complies with this subsection.
 - (3) To determine if any part of a UST system is within 1,000 feet of any existing community water systems, potable drinking water well, or source water, at a minimum owners and operators shall measure the distance from the closest part of the new or replaced UST, piping or dispenser system, or other part of a UST system, to the closest part of the nearest community water system, potable drinking water well, or source water, including such components as the location of wellheads for groundwater, depth to groundwater, the location of the intake point for surface water, water lines, processing tanks, water storage tanks, and water distribution or service lines.
- ~~[C-]~~**E.** ~~[In a manifolded UST system, secondary containment is only required for a new or replaced UST; existing USTs in the manifolded system are not required to have secondary containment. Additionally, the]~~ The secondary containment requirements of this section shall not apply to:

- (1) existing USTs in a manifolded system (as secondary containment is only required for a new or replaced UST in a manifolded system):
- ~~[(1)]~~ (2) repairs meant to restore a UST, piping or dispenser system to operating condition;
 - ~~[(2)]~~ (3) piping runs that are not new or replaced for USTs with multiple piping runs; ~~or~~
 - ~~[(3)]~~ (4) suction piping that meets the requirements of ~~Subparagraphs (a) through (e) of Paragraph (2) of~~ Subsection B of ~~[20.5.6.10]~~ 20.5.6.11 NMAC; or
 - (5) non-pressurized piping that manifolds two or more underground tanks together, such as a siphon piping system.
- [20.5.4.15 NMAC - N, 04/04/2008; A, 03/17/2012]

20.5.4.19 INSTALLATION OF AST SYSTEMS:

- A. Owners and operators shall properly install all ASTs and piping ~~in accordance with the manufacturer's instructions and~~
- ~~[(1)]~~ in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory approved in advance by the department, ~~that includes or provides for~~ or in accordance with 20.5.4.38 NMAC. Installation not in accordance with 20.5.4.38 NMAC shall address the following:
 - (1) support, if required in the sole discretion of the department, by the use of saddles or longitudinal supports:
 - ~~[(a)]~~(2) [foundation, support and anchorage] a foundation that is of sufficient thickness and reinforcement to support the tank when the tank is filled to maximum capacity with a regulated substance and that is constructed of concrete with a minimum compression strength of 3,000 pounds per square inch at 28 days (or other comparable material approved by the department), and shall be used for:
 - (a) double-walled or double-bottomed above ground storage tanks;
 - (b) horizontal tanks with saddles, which shall be placed at a minimum on footings constructed of concrete or other comparable material approved in advance by the department;
 - (c) horizontal tanks with longitudinal supports, which shall be placed on a concrete slab that extends at least 12 inches beyond the perimeter of the tank and is constructed of concrete or other comparable material approved in advance by the department;
 - (d) vertical tanks, which shall be placed on a concrete slab that extends at least 12 inches beyond the perimeter of the tank and is constructed of concrete or other comparable material approved in advance by the department; and
 - (e) single-walled above ground storage tanks, which shall be installed inside secondary containment that meets the requirements of 20.5.4.29 NMAC:
 - (3) anchorage;
 - ~~[(b)]~~(4) fills, gauges and vents;
 - ~~[(c)]~~(5) environmental protection; and
 - ~~[(d)]~~(6) testing and inspection ~~in accordance with the manufacturer's instructions~~.
- B. The following may be used to comply with the requirements of this section:
- (1) American petroleum institute standard 650, "*welded steel tanks for oil storage*;"
 - (2) national fire protection association 30, "*flammable and combustible liquids code*;"
 - (3) national fire protection association 30A, "*code for motor fuel dispensing facilities and repair garages*;"
 - (4) petroleum institute publication RP200, "*recommended practices for installation of above ground storage tank systems for motor vehicle fueling*;"
 - (5) steel tank institute RP R912, "*installation instructions for shop fabricated stationary aboveground storage tanks for flammable, combustible liquids*;" or
 - (6) international code council, "*international fire code*."
- C. In addition to other requirements of this section, if owners or operators want to place into service any shop-fabricated AST that has been permanently closed at any location, owners and operators shall:
- (1) not use the AST until they have provided to the department:
 - (a) the age and type of tank;
 - (b) the tank manufacturer;
 - (c) a list of regulated and non-regulated substances previously stored in the tank and for what duration;

- (d) a description of any unusual circumstances involving the AST; and
- (e) any other information requested by the bureau based on the circumstances; and
- (2) install the system in compliance with all requirements for new AST systems in this part.
- D. Based on the information received in Subsection C of this section, the department may require owners and operators who want to relocate an AST that has been temporarily or permanently closed to have the tank recertified by a certified tank inspector, the tank manufacturer, or a professional engineer prior to use. [20.5.4.19 NMAC - Rp, 20.5.4.401 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.25 ADDITIONAL REQUIREMENTS FOR AST SYSTEMS:

A. Above ground tanks located at an elevation so as to produce a gravity head on the dispenser system or piping shall be equipped with an anti-siphon or solenoid valve which meets the requirements of the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory approved in advance by the department. Owners and operators shall install and adjust the anti-siphon or solenoid valve so that fuel cannot flow by gravity from the tank to the dispenser system if the piping fails when the dispenser is not in use.

B. The following may be used to meet the requirements of this section:

- (1) national fire protection association 30A, "*code for motor fuel dispensing facilities and repair garages;*" or
- (2) international code council, "*international fire code.*"

[20.5.4.25 NMAC - Rp, 20.5.4.401 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.26 STORAGE TANKS AT MARINAS:

A. Owners and operators of storage tank systems at marinas shall install an automatic break-away device to shut off flow of fuel from on-shore piping, which shall be located at the connection of the on-shore piping and the piping leading to the dock. Owners and operators shall install another automatic break-away device to shut off flow of fuel located at any connection between flexible piping and hard piping on the dispenser system and dock. The automatic break-away devices shall be easily accessible, and their location shall be clearly marked.

B. Owners and operators of storage tank systems at marinas shall electrically isolate dock piping where excessive stray electrical currents are encountered.

C. Owners and operators of storage tank systems at marinas shall protect piping from stress due to tidal action.

[20.5.4.26 NMAC - Rp, 20.5.4.401 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.29 AST SECONDARY CONTAINMENT: SINGLE-WALLED TANKS AND PIPING: Owners and operators shall construct a containment area under and around single-walled ASTs and piping, except for piping that meets the requirements of 20.5.4.23 NMAC. Internal lining of ASTs shall not be used as a method of secondary containment.

A. General requirements:

(1) Owners and operators shall design and construct secondary containment to minimize damage to the surfaces of the tanks due to corrosion, accumulation of water, and stray electrical current.

(2) Owners and operators shall ensure that any regulated substance stored in an AST system is chemically compatible with the secondary containment material. If owners and operators store more than one type of regulated substance within a single containment area, owners and operators shall ensure that the substances are chemically compatible with each other and with the containment material.

(3) Owners and operators shall construct a containment area which has a capacity of at least one hundred ten percent of the size of the largest AST in the containment area plus the volume displaced by the other AST(s).

(4) Owners and operators shall not use clay for the construction of secondary containment.

(5) Owners and operators may use a vault which complies with the requirements of this section as secondary containment.

B. Concrete secondary containment. Owners and operators may use concrete for construction of the containment area.

(1) If owners and operators use concrete for construction of secondary containment installed on or after (the effective date of this rule), the concrete containment shall be designed and constructed in accordance with ~~[the current edition of]~~ an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, which shall be approved in advance of construction by the department. ~~[Concrete~~

~~secondary containment shall be coated or internally lined with a material which, in conjunction with the concrete, has a permeability rate to the regulated substance stored of 1×10^{-7} centimeters per second or less.] New concrete secondary containment shall comply with Subparagraph (a), (b) or (c) below:~~

(a) be coated or internally lined with a material which, in conjunction with the concrete, has a demonstrated permeability rate to the regulated substance stored of 1×10^{-7} centimeters per second or less;

(b) be installed in accordance with a set of plans that have been stamped by a professional engineer demonstrating that the system is able to contain a release of regulated substances for seven days and properly support the above ground storage tank systems within the secondary containment; or

(c) be installed in accordance with an alternate method for concrete secondary containment design and construction that is approved in advance by the department pursuant to 20.5.4.38 NMAC.

~~(2) [Existing AST systems with] Secondary containment constructed of concrete existing on (the effective date of this rule) shall meet the requirements of this section on the schedule established in 20.5.4.35 NMAC [if the secondary containment is made impervious in accordance with the standard in Paragraph (1) of this subsection. Owners and operators shall install the coating or internal lining in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, which shall be approved by the department in advance of installation.] by:~~

~~(a) one of the methods listed in Subsection B of 20.5.4.29 NMAC; or~~

~~(b) coating or internal lining the existing concrete containment in compliance with manufacturer's instructions, or in accordance with an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, which shall be approved by the department in advance of the coating or lining, or obtain department approval for an alternate method following 20.5.4.38 NMAC.~~

~~[(3) Owners and operators of AST systems shall submit to the department a report on the installation of the coating or internal lining for concrete secondary containment which shall certify that the coating or internal lining has been installed in accordance with the manufacturer's recommendations or an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory. The report shall contain the date of the inspection or installation, the test methods used during the inspection, the data collected during the inspection, and the standard or code of practice according to which the installation was conducted. One of the following shall conduct the inspection and prepare the inspection report:~~

~~(a) a coating inspector who is certified by the national association of corrosion engineers; or~~

~~(b) a protective coatings specialist who is certified by the society for protective coatings.]~~

~~[(4) (3) The following may be used to comply with the concrete secondary containment requirements:~~

~~(a) American concrete institute 350R, "environmental engineering of concrete structures;"~~

~~(b) American concrete institute 350.2R, "concrete structures for containment of hazardous materials;"~~

~~[(b)] (c) American concrete institute 224R, "control of cracking in concrete structures;"~~

~~[(e)] (d) national association of corrosion engineers international RP0892, "coatings and linings over concrete for chemical immersion and containment service;"~~

~~[(d)] (e) society of protective coatings TU2/NACE6G197, "design, installation and maintenance of coating systems for concrete used in secondary containment;"~~

~~[(e)] (f) national association of corrosion engineers international standard number 6/SSPC 13, "surface preparation of concrete;"~~

~~[(f)] (g) national association of corrosion engineers international RP0281, "method for conducting coating (paint) panel evaluation testing in atmospheric exposures; or~~

~~[(g)] (h) American society for testing and materials D4258, "standard practice for cleaning concrete for coating."~~

(4) Owners and operators of AST systems shall have the option of fulfilling Paragraphs (1) through (3) of this subsection by submitting to the department a set of plans for the concrete secondary containment that have been stamped by a professional engineer, or for existing secondary containment a report stamped by a professional engineer demonstrating that the system is able to contain a release of regulated substances for seven days and properly support the above ground storage tank systems within the secondary containment.

C. Liners as secondary containment.

(1) If owners and operators use geo-synthetic membrane for secondary containment, the geo-synthetic membranes or liners shall have a minimum thickness of 60 mils.

(2) Owners and operators shall install liners in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory

approved in advance by the department, or in accordance with the manufacturer's specifications. Owners and operators shall submit to the department a report on the installation of the geo-synthetic membrane which shall certify that the geo-synthetic membrane has been installed in accordance with the manufacturer's recommendations or an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory. The report shall contain the date of the inspection and installation of the geo-synthetic membrane, the test methods used during the inspection, data collected during the inspection, and the standard or code of practice according to which the installation was conducted. An installer or inspector with appropriate certification or experience (which shall be documented in the report) shall prepare the report.

(3) Earthen dike fields shall be lined with a geo-synthetic membrane to qualify as secondary containment.

D. Steel as secondary containment. If owners and operators use steel for construction of the secondary containment area, and if the steel is routinely in contact with soil, water or concrete, owners and operators shall cathodically protect the containment area in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory approved in advance by the department.

[20.5.4.29 NMAC - Rp, 20.5.4.401 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.32 SECONDARY CONTAINMENT FOR AST DISPENSERS: Owners and operators shall install a containment sump underneath each dispenser system associated with an AST, unless the dispenser is located within secondary containment.

A. Owners and operators shall hydrostatically test the sump upon installation, in accordance with manufacturer's recommendations.

B. The following may be used to comply with this containment sump requirement: dispenser liners, under-dispenser containment, dispenser pans, and dispenser sump liners.

[20.5.4.32 NMAC - Rp, 20.5.4.401 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.33 SPILL AND OVERFILL PREVENTION:

A. Except as provided in Subsection B of this section, to prevent spilling and overfilling associated with transfers of regulated substances to storage tank systems, owners and operators shall use the following spill and overfill prevention equipment as of August 15, 2004, for ASTs and as of December 22, 1998, for USTs:

(1) spill prevention equipment that will prevent release of regulated substances to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(2) overfill prevention equipment for USTs 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 audible alarm;

(3) overfill prevention equipment for ASTs 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 audible and visual alarm.

B. Owners and operators are not required to use the spill and overfill prevention equipment specified in Subsection A of this section if approved in writing in advance by the department where:

(1) alternative equipment is used that is determined by the department to be no less protective of public health, safety and welfare and the environment than the equipment specified in Paragraphs (1), (2) or (3) of Subsection A of this section; or

(2) the storage tank system is filled by transfers of no more than 25 gallons at one time;

C. Owners and operators are not required to install and operate spill and overfill prevention equipment required in ~~Paragraph (1)~~ Paragraphs (1) and (3) of Subsection A of this section for any AST system where the fill port is located within a secondary containment system meeting the requirements of 20.5.4.27 NMAC and 20.5.4.29 NMAC.

D. Owners and operators shall install any AST for a marina with a system that will allow the level of regulated substance in the AST to be monitored during a delivery of fuel to the AST in addition to spill catchment basins. Unless the AST system is equipped with an audible overfill alarm that will alert the transfer operator at 90 percent of capacity, and overfill protection which will shut off flow of product during a fuel delivery to the tank at 95 percent, owners and operators shall visually monitor the delivery of fuel.

[20.5.4.33 NMAC - Rp, 20.5.4.402 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.35 DEADLINES FOR CLOSING OR UPGRADING EXISTING AST SYSTEMS AND EXISTING EMERGENCY GENERATOR SYSTEMS:

- A. Not later than July 1, 2011 all owners and operators shall[-
~~A-~~] upgrade existing AST systems to meet all performance standards for new AST systems in 20.5.4 NMAC, with the exception that existing AST systems need not submit project drawings; or
~~B-~~] close any AST system that does not meet the performance standards in 20.5.4 NMAC [~~and~~
~~C-~~], except for the following:
- (1) owners and operators may delay compliance with AST system secondary containment requirements of 20.5.4.29 NMAC until July 1, 2013;
 - (2) owners and operators must close any UST being used as an AST no later than July 1, 2013; and
 - (3) any good faith upgrades to AST system secondary containment made in compliance with this part prior to December 3, 2010 shall be deemed in compliance with this section.
- B. Not later than July 1, 2013 owners and operators shall:
- (1) upgrade AST and UST emergency generator systems existing as of the effective date of this rule to meet all performance standards for AST and UST systems in 20.5.4 NMAC, with the exception that existing systems need not submit project drawings; or
 - (2) close any AST or UST emergency generator system that does not meet the performance standards in 20.5.4 NMAC.
- [20.5.4.35 NMAC - Rp, 20.5.4.405 NMAC, 04/04/2008; A, 03/17/2012]

20.5.4.38 ALTERNATE METHODS:

- A. If owners and operators want to install tanks, piping, storage tank systems, spill and overfill equipment, secondary containment, or any other requirement of this part [~~by another method~~] with materials or methods that are or are not in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, owners and operators shall apply in writing to the department, shall provide supporting documentation, and shall not begin the installation unless and until the department approves the request in writing. At a minimum, the request for an alternate method shall contain the following:
- (1) date the form is completed;
 - (2) facility name, number, address (with county) and telephone number;
 - (3) owner name, number, address and telephone number;
 - (4) citation to regulation for which alternate method or material (such as type of piping) is requested;
 - (5) brief description of the proposed alternate method or material; [~~and~~]
 - (6) justification of proposed alternate method or material, including citation to [~~the~~] a standard or code supporting its use, if available; and
 - (7) demonstration of its equivalent protection of public health, safety and welfare and the environment.

B. The department shall not grant the request unless owners and operators demonstrate that the request will provide equivalent protection of public health, safety and welfare and the environment.

[20.5.4.38 NMAC - Rp, 20.5.4.404 NMAC, 04/04/2008; A, 03/17/2012]

[The department provides an optional form that may be used to request approval of an alternate method. The form is available on the department's website, www.nmenv.state.nm.us or by contacting the Petroleum Storage Tank Bureau at 505-476-4397 or 1301 Siler Road, Building B, Santa Fe, New Mexico 87507.]