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, 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 x 10 (-7) centimeters per second or less~~].

(a) Owners and operators shall submit to the department a set of plans for the concrete secondary containment that have been stamped by a professional engineer. The plans shall be submitted at least thirty (30) days in advance of the start of construction.

(b) Owners and operators shall submit to the department a report stamped by a professional engineer that the concrete secondary containment has been constructed in accordance with the industry code or standard listed in the plans within thirty (30) days of the completion of the construction of the secondary containment.

(c) Storage tank systems shall not be installed in the concrete secondary containment until the department receives a document stamped by a professional engineer approving placement of the AST.

(2) Existing AST systems with secondary containment constructed of concrete 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.~~] and shall meet the following:

(a) the requirements in Paragraph 1 of this subsection;

(b) provide a report stamped by a professional engineer demonstrating that the system is able to contain a release of regulated substances for seven (7) days and properly support the above-ground storage tank systems within the secondary containment;

(c) coat or internally line the 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; or

(d) 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*;"

[~~(c)~~](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.*"

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]

20.5.4.30 VENTING FOR NEW AST SYSTEMS:

A. Owners and operators shall design and construct venting for all new AST systems, following 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.

B. Types of vent pipes.

(1) Vent pipes that are provided for normal tank venting shall extend at least 12 feet above ground level.

(2) If attached to a structure, vent pipes shall extend at least 5 feet above the highest projection of the canopy or roof.

(3) Vent pipes for normal tank venting shall be of appropriate size for the capacity and operating conditions of the tank.

(4) Emergency vents shall be of appropriate size for the capacity of the AST and shall be installed on the primary tank and on the interstice of all double-walled tanks.

C. The following may be used to comply with the requirements of this section:

(1) petroleum equipment institute publication RP200 "*recommended practices for installation of above ground storage systems for motor vehicle fueling*;"

(2) national fire protection association 30, "*flammable and combustible liquids code;*"

A. Owners and operators shall design, construct and install loading racks following 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 following may be used to comply with this requirement:

(1) American petroleum institute standard 2610, "*design, construction, operation, maintenance & inspection of terminal and tank facilities*;"

(2) national fire protection association 30, *"flammable and combustible liquids code;"* or

(3) international code council, *"international fire code."*

B. Owners and operators shall install a containment system that is designed to contain all releases of regulated substances that occur during loading and unloading operations at the loading rack. For all loading racks, owners and operators shall install either:

(1) a drainage system, or secondary containment system meeting the requirements of 20.5.4 NMAC, with a catchment basin capable of containing the largest compartment of a tank car or tanker truck that is loaded or unloaded at the facility; or

(2) a drainage system that is connected to a treatment facility designed to receive releases of regulated substances that occur during loading and unloading operations.

C. Owners and operators shall ensure that loading racks are at least 25 feet from ASTs, buildings, and property lines.

[20.5.4.34 NMAC - N, 04/04/2008]

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

A. Not later than July 1, 2011 for existing AST systems all owners and operators shall 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 close any AST system that does not meet the performance standards in 20.5.4 NMAC, except for the following:

[~~C.~~] (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;

(3) Any good faith upgrades to AST system secondary containment made in compliance with this section 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 July 1, 2011 to meet all performance standards for new 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]

20.5.4.36 REQUIRED NOTIFICATION PRIOR TO INSTALLATION: To ensure that an inspector has an opportunity to be present during the steps in procedures which are important to the prevention of releases, owners, operators, and certified tank installers shall give the department notice of the dates on which critical junctures in the installation of a storage tank system are to take place. The inspector may require that critical junctures be performed from Monday through Friday during regular business hours.

A. For installations, the term "critical junctures" means:

(1) preparation of the excavation immediately prior to receiving backfill and a UST or piping for an AST or UST;

(2) installation of any tank pad, vault, or secondary containment for a storage tank system;

(3) setting of a storage tank and piping, including placement of any anchoring devices, backfill to the level of the tank, and strapping, if any;

(4) any time during the installation in which components of piping are connected;

(5) all pressure testing or integrity testing of a storage tank system, including associated piping, performed during the installation; and

(6) completion of backfill and filling of the excavation.

B. Owners, operators and certified tank installers shall give at least 30 days written notice before the installation of a storage tank system. At a minimum, the installation notice shall contain the following information: