TITLE 20 ENVIRONMENTAL PROTECTION JJP 8 22 07
CHAPTER 5 PETROLEUM STORAGE TANKS
PART 6 RELEASE DETECTION

20.5.6.1 ISSUING AGENCY: New Mexico Environmental Improvement Board.
[20.5.6.1 NMAC - Rp, 20.5.6.1 NMAC, xx/xx/200x]

20.5.6.2 SCOPE: This part applies to owners and operators of ~~a~~ storage tanks as provided in 20.5.1 NMAC. If the owner and operator of a storage tank are separate persons, only one person is required to comply with the requirements of this part, including any notice and reporting requirements; however, both parties are liable in the event of noncompliance.
[20.5.6.2 NMAC - Rp, 20.5.6.2 NMAC, xx/xx/200x]

20.5.6.3 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; the Ground Water Protection Act, NMSA 1978, sections 74-6B-1 through 74-6B-14; and the general provisions of the Environmental Improvement Act, NMSA 1978, sections 74-1-1 through 74-1-1~~5~~6.
[20.5.6.3 NMAC - Rp, 20.5.6.3 NMAC, xx/xx/200x]

20.5.6.4 DURATION: Permanent.
[20.5.6.4 NMAC - Rp, 20.5.6.4 NMAC, xx/xx/200x]

20.5.6.5 EFFECTIVE DATE: ~~August 15, 2003~~ _____, 200_, unless a later date is indicated in the bracketed history note at the end of a section.
[20.5.6.5 NMAC - Rp, 20.5.6.5, xx/xx/200x]

20.5.6.6 OBJECTIVE: The purpose of 20.5.6 NMAC is to ensure that releases from storage tanks are detected early to minimize potential harmful resulting effects, and to regulate storage tank systems in order to protect the public health, safety and welfare and the environment of the state.
[20.5.6.6 NMAC - Rp, 20.5.6.6 NMAC, xx/xx/200x]

20.5.6.7 DEFINITIONS: The definitions in 20.5.1 NMAC apply to this part.
[20.5.6.7 NMAC – Rp, 20 NMAC 5.6.7 NMAC, xx/xx/200x]

~~20.5.6.8 to 20.5.6.599 [RESERVED]~~

~~20.5.6.600 DEADLINES FOR RELEASE DETECTION FOR ALL STORAGE TANK UST SYSTEMS:~~
~~A. Owners and operators of new and existing storage tank systems shall provide a method, or combination of methods, of release detection that: meet all of the following requirements.~~
~~(1) The system can detect a release from any portion of the tank, connected piping, and ancillary equipment that routinely contains a regulated substance;~~

~~(2) The system is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition;~~

~~(3) The system meets the performance requirements in 20.5.6.601 through 606, NMAC with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer.~~

~~(4) In addition, methods for USTs used after December 22, 1990, except for methods permanently installed prior to that date, shall be capable of detecting the leak rate or quantity specified for that method in Subsections B, C.(1), and D of 20.5.6.603 NMAC or Subsections A and B of 20.5.6.603 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 20.5.6 NMAC indicates a release may have occurred, owners and operators shall notify the department in accordance with 20.5.2.204 and 20.5.7 NMAC.~~

~~C. Owners and operators of all UST systems shall comply with the release detection requirements of this section.~~

[Release detection for USTs was phased-in and has been required since 1993; these remaining standards have been integrated into 20.5.6.9.]

~~D. New AST systems shall meet the release detection requirements of 20.5.6.601 through 606 NMAC when installed.~~ ~~Existing AST systems shall meet the release detection requirements of 20.5.6.601 through 606 NMAC by the following dates, which are also described in the table below:~~

~~(1) Owners and operators of ASTs installed on or before June 30, 1991, or where the installation date is unknown, shall perform a tightness test or an internal inspection on the AST system by August 15, 2004. The tightness test or internal inspection shall be conducted in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, and shall be approved in advance in writing by the department. Whether or not a tightness test or internal inspection shows that a system has a suspected release, owners and operators shall have until August 15, 2004, to comply with the release detection requirements of 20.5.6 NMAC. If a tightness test or internal inspection shows that a system has a suspected release, then owners and operators shall comply with the requirements of 20.5.7 NMAC. The following may be used to comply with the above testing requirements:~~

~~(a) American Petroleum Institute Standard: API Specification 12F: "Shop-Welded Tanks for Storage of Production Liquids;"~~

~~(b) American Petroleum Institute Standard 650, "Welded Steel Tanks for Oil Storage," with applicable addenda;~~

~~(c) American Petroleum Institute Standard 653, "Tank Inspection, Repair, Alteration, and Reconstruction;"~~

~~(d) Petroleum Equipment Institute RP200, "Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling;"~~

~~(e) Underwriter's Laboratories Standards: UL 142, "Steel Aboveground Tanks for Flammable and Combustible Liquids;" or~~

~~(f) Steel Tank Institute Standard SP001, "Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids."~~

~~(2) Owners and operators of ASTs installed on or after July 1, 1991 shall comply with the release detection requirements in 20.5.6.601 through 20.5.6.606 NMAC by August 15, 2004.~~

~~(3) For an AST system of any age with tanks or piping that are completely visible, readily accessible and not in contact with the ground or soil, owners and operators may use visual inspection in compliance with Subsection H of 20.5.6.603 NMAC and Subsection E of 20.5.6.604 NMAC as release detection for those portions completely visible, readily accessible and not in contact with the ground or soil, and need not perform any internal inspection or tightness test required by this subsection for those portions.~~

~~E. Owners and operators shall perform a tightness test or internal inspection of ASTs 10 years after installation, unless the AST is in secondary containment that complies with the requirements of Subsection C of 20.5.4.401 NMAC. The following may be used as guidance for compliance with this requirement:~~

~~(1) American Petroleum Institute Standard 653, "Tank Inspection, Repair, Alteration, and Reconstruction;" or~~

~~(2) Steel Tank Institute Standard SP001, "Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids."~~

~~F. For any existing storage tank UST system to which an owner and operator cannot apply a method of release detection that complies with the requirements of 20.5.6 NMAC by the deadlines in 20.5.6 NMAC, the owner and operator shall complete the closure procedures in 20.5.8 NMAC.~~

~~Schedule for phase-in of release detection for AST systems~~

~~Date of Installation~~	~~Deadline~~	~~Tank~~	~~Piping~~
~~On or before June 30, 1991, or unknown~~	~~August 15, 2004~~	~~Internal inspection or visual inspection~~	~~Tightness test or visual inspection~~
	~~August 15, 2004~~	~~Applicable method of release detection~~	~~Applicable method of release detection~~
~~On or after July 1, 1991~~	~~August 15, 2004~~	~~Applicable method of release detection~~	~~Applicable method of release detection~~

~~Applicable Method: Owners and operators shall ensure that one of the applicable methods of release detection in Subsections D, G, H or I of 20.5.6.603 NMAC or 20.5.6.604 is used to meet the requirements in 20 NMAC 5.6.[20.5.6.600 NMAC, Rp, 20 NMAC.5.6.600, 8/15/03]~~

20.5.6.8 REQUIREMENTS AND DEADLINES FOR RELEASE DETECTION FOR AST SYSTEMS:

A. Owners and operators of new and existing AST systems shall provide a method, or combination of methods, of release detection that: ~~meet all of the following requirements, or meet the requirements for visual inspections in Section 20 of 20.5.6 NMAC~~.

(1) ~~The system~~ can detect a release from any portion of the tank, connected piping, and ancillary equipment that routinely contains a regulated substance; and

(2) ~~The system~~ is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for proper operating condition; and

(3) ~~The system~~ meets the applicable performance requirements in 20.5.6.~~10 through 25~~ NMAC 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; or ~~with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer~~.

[This requirement is from 20.5.6.600.A.]

(4) meets all the requirements for visual inspections in Section 20 of 20.5.6 NMAC.

B~~C~~. When a release detection method operated in accordance with the performance standards in 20.5.6 NMAC indicates a release may have occurred, owners and operators shall notify the department in accordance with 20.5.2.7 and 20.5.12 NMAC.

C~~D~~. New AST systems shall meet the release detection requirements of 20.5.6 NMAC when installed.

[Note: Part 1 defines "New AST system" as a system for which installation began after June 14, 2002.]

D~~E.~~ For existing AST systems installed before July 1, 1991, or where the installation date is unknown, owners and operators shall perform either a tightness test, or an internal inspection on the AST system by August 15, 2004. The tightness test or internal inspection shall be conducted in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory, and shall be approved in advance by the department. ~~Whether or not a tightness test or internal inspection indicates that a system has a suspected release, owners and operators shall have until August 15, 2004, to comply with the release detection requirements of 20.5.6 NMAC.~~ If a tightness test or internal inspection shows that a system has a suspected release, then owners and operators shall comply with the requirements of 20.5.7 NMAC. The following may be used to comply with the above testing requirements:

[Release detection deadlines are in other sections of this part, as are standards and requirements for tightness testing and internal inspection, so this sentence is not needed and is confusing.]

(1) American Petroleum Institute Standard: API Specification 12F: “Shop-Welded Tanks for Storage of Production Liquids;”

(2) American Petroleum Institute Standard 650, “Welded Steel Tanks for Oil Storage,” with applicable addenda;

(3) American Petroleum Institute Standard 653, “Tank Inspection, Repair, Alteration, and Reconstruction;”

(4) Petroleum Equipment Institute RP200, “Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling;”

(5) Underwriter’s Laboratories Standards: UL 142, “Steel Aboveground Tanks for Flammable and Combustible Liquids;” or

(6) Steel Tank Institute Standard SP001, “Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids.”

E~~F~~. Owners and operators of AST systems installed between July 1, 1991 and August 14, 2003 shall comply with the release detection requirements in 20.5.6.~~20 through 20.5.6.25~~ NMAC by August 15, 2004.

F~~G~~. Owners and operators of AST systems installed on or after August 15, 2003 shall comply with the release detection requirements in 20.5.6.~~20 through 20.5.6.25~~ NMAC when installed.

[These requirements and deadlines were formerly found in 20.5.600.D.]

G~~H~~. Owners and operators shall complete the closure procedures in 20.5.8 NMAC for any existing AST system to which an owner and operator cannot apply a method of release detection that complies with the requirements of 20.5.6 NMAC by the deadlines in 20.5.6 NMAC.

[This requirement was compiled as 20.5.6.600.F.]

[20.5.6.8 NMAC – Rp, 20.5.6.600 NMAC xx/xx/200x]

20.5.6.~~601~~9 REQUIREMENTS FOR PETROLEUM ~~STORAGE TANK~~ UST SYSTEMS:

A. Owners and operators of new and existing ~~storage tank~~ UST systems shall provide a method or combination of methods of release detection that: ~~meet all of the following requirements.~~

(1) ~~The system~~can detect a release from any portion of the tank, connected piping, and ancillary equipment that routinely contains a regulated substance;

(2) ~~The system~~is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for ~~operability or running~~ proper operating condition; and

(3) ~~The system~~meets the applicable performance requirements in ~~20.5.6.601 through 606, NMAC~~ 20.5.6 NMAC with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer, 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. ~~(4)~~ In addition, methods for USTs used after December 22, 1990, except for methods permanently installed prior to that date, shall be capable of detecting the leak rate or quantity specified for that method in ~~Subsections B, C.(1), and D of 20.5.6.603 NMAC or Subsections A and B of 20.5.6.603~~ 20.5.6 NMAC 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 20.5.6 NMAC indicates a release may have occurred, owners and operators shall notify the department in accordance with 20.5.2.~~204~~7 and 20.5.7 NMAC.

C. Owners and operators of all UST systems shall comply with the release detection requirements of this section.

D. Owners and operators of ~~petroleum~~ underground storage tank systems shall provide release detection for tanks by monitoring monthly for releases using one of the methods listed in ~~Subsections D through G of~~ 20.5.6~~.603~~ NMAC with the following exceptions:

(1) UST systems that meet the performance standards in 20.5.4~~.400~~ NMAC may use the monthly inventory control requirements in ~~Subsection A or B of~~ 20.5.6.~~603~~ NMAC, in conjunction with tank tightness testing conducted in accordance with ~~Subsection C of 20.5.6.603 NMAC~~ this part at least every five years until 10 years after the tank is installed or upgraded under ~~Subsection A of~~ 20.5.4.~~400~~ NMAC.

(2) UST systems that do not meet the performance standards in 20.5.4.~~400~~ NMAC shall upgrade under 20.5.4.~~400~~ NMAC or permanently close under 20.5.8.~~801~~ NMAC.

(3) USTs with capacity of up to 2,000 ~~550~~ gallons ~~or less~~ may use manual tank gauging conducted in accordance with ~~Subsection B of~~ 20.5.6.~~603~~ NMAC.

[Federal regulations allow this method for tanks up to 2,000 gallons, 40 CFR 280.43(b).]

(4) Owners and operators of UST systems installed or replaced as required by Subsection A of 20.5.4.15 NMAC after [effective date of this rule] shall monitor the UST system monthly for releases in accordance with 20.5.6.19 NMAC and Subsection D of 20.5.6.24 NMAC.

[This new language is designed to complement the requirements of the Energy Policy Act, and to clarify that if owners/operators replace USTs with double-walled tanks, they must use interstitial monitoring between the 2 walls of tanks and piping.]

~~For any existing storage tank system to which an owner and operator cannot apply a method of release detection that complies with the requirements of 20.5.6 NMAC by the deadlines in 20.5.6 NMAC, the owner and operator shall complete the closure procedures in 20.5.8 NMAC~~

[20.5.6.9 NMAC - Rp, 20.5.6.601 NMAC, xx/xx/200x]

20.5.6.10 REQUIREMENTS FOR AST SYSTEMS:

A. Owners and operators of ~~petroleum~~ new and existing AST ~~storage tank~~ systems shall provide a method or combination of methods of release detection ~~for tanks~~ that follows 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, and by monitoring monthly for releases using one of the applicable methods listed in ~~Subsections D through G of~~ 20.5.6.~~603~~ NMAC.

[This requirement comes from 20.5.6.601.A.]

B. Owners and operators shall perform a tightness test or internal inspection of ASTs 10 years after installation, unless the AST is in secondary containment that complies with the requirements of 20.5.4 NMAC. The following may be used as guidance for compliance with this requirement:

(1) American Petroleum Institute Standard 653, “Tank Inspection, Repair, Alteration, and Reconstruction;” or

(2) Steel Tank Institute Standard SP001, “Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks for Storage of Combustible and Flammable Liquids.”

[This subsection was formerly 20.5.6.600.E.]

C. Owners and operators of an aboveground storage tank who perform a tank tightness test shall ensure that the test method is capable of detecting a 0.2 gallon per hour leak rate from any portion of the AST that routinely contains regulated substances while accounting for the effects of thermal expansion or contraction of the regulated substance, vapor pockets, tank deformation, and evaporation or condensation~~, and the location of the water table~~.

[This requirement was found in 20.5.6.603.C(2). Location of the water table is an issue for USTs but not for ASTs.]

D. Owners and operators of AST systems shall provide the department with a report on all tank tightness testing, line tightness and leak detector functionality testing conducted on their petroleum storage tank systems that includes the following:

(1) name of the technician who performed the test;

(2) training and equivalent experience of the technician in the type of testing performed, including certification numbers and national association where certification was obtained or a detailed description of where and when the technician gained experience;

(3) brand name and model number of the testing equipment used during the test, date the testing equipment was last calibrated and by whom;

(4) date of the test;

(5) duration of the test; and

(6) results of the test.

[This new requirement, which appears for piping in 20.5.6.11.D and for USTs in 20.5.6.15.D is important to ensure that appropriately trained and experienced personnel are performing these tests, and that the test is appropriate for the type of tank and properly performed. The required information is readily available and in most reports prepared by tightness testers, so will not cost owners a significant amount, but will provide the Bureau with helpful information with which to evaluate whether the test yielded valid results.]

[20.5.6.10 NMAC - N, xx/xx/200x]

20.5.6.11 REQUIREMENTS FOR PIPING: ~~B.~~Owners and operators of petroleum storage tank systems shall provide release detection for piping that routinely contains regulated substances by 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, and by monitoring for releases in a manner specified below.

A. Owners and operators of ~~P~~piping that conveys regulated substances under pressure shall ~~comply with one of the following requirements~~:

(~~a~~1) ~~Owners and operators shall~~ equip pressurized piping with an automatic line leak detector in accordance with ~~Subsection A of~~ 20.5.6.~~604~~23 NMAC; and

(~~b~~2) ~~Owners and operators of pressurized piping shall~~ conduct annual line tightness testing in accordance with ~~Subsection B of~~ 20.5.6.~~604~~23 NMAC or conduct monthly monitoring in accordance with ~~Subsections C or E of~~ 20.5.6.~~604~~23 NMAC, as applicable.

B. Piping that conveys regulated substances under suction shall either have a line tightness test conducted at least every three years ~~and~~ in accordance with ~~Subsection B of~~ 20.5.6.~~604~~23 NMAC or use a monthly monitoring method conducted in accordance with ~~Subsection C of~~ 20.5.6.~~604~~23 NMAC. No release detection is required for suction piping that is designed and constructed to meet all of the following standards:

(~~a~~1) The below-grade piping operates at less than atmospheric pressure.

(~~b~~2) 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~~3) Only one check valve is included in each suction line.

(~~d~~4) The check valve is located directly below and as close as practical to the suction pump.

(~~e~~5) A method is provided that allows compliance with ~~Subp~~Paragraphs (~~b~~2) through (~~d~~4) of ~~Paragraph (2) of~~ Subsection B of this section to be readily determined.

C. Owners and operators of aboveground storage tank systems with underground piping that conveys regulated substances under suction shall either have a line tightness test conducted every 12 months and in accordance with Subsection B of 20.5.6.23 NMAC or conduct monthly monitoring in accordance with Subsection E of 20.5.6.23 NMAC.

[Since by nature ASTs are above grade and associated underground piping will have a constant gravity head, there will always be pressure on the piping. This makes the requirements for this type of piping equivalent to those for pressure piping.]

D. Owners and operators of storage tank systems shall provide the department with a report on all line or piping tightness testing conducted on their petroleum storage tank systems that includes the following:

(1) name of the technician who performed the test;

(2) training and equivalent experience of the technician in the type of testing performed, including certification numbers and national association where certification was obtained or a detailed description of where and when the technician gained experience;

(3) brand name and model number of the testing equipment used during the test, date the testing equipment was last calibrated and by whom;

(4) date of the test;

(5) duration of the test; and

(6) results of the test.

E. Owners and operators shall provide release detection for piping by monitoring at least monthly for releases using one of the methods in 20.5.6.23 NMAC, except if using automatic line leaks detectors in compliance with Subsection A of 20.5.6.23 NMAC or line tightness testing in compliance with Subsection B of 20.5.6.23 NMAC.

[20.5.6.11 NMAC - Rp, 20.5.6.601 NMAC, x/xx/xx]

20.5.6.~~602~~12 REQUIREMENTS FOR HAZARDOUS SUBSTANCE UST SYSTEMS:

A. Owners and operators of hazardous substance UST systems shall provide release detection at existing UST systems that meets the requirements for petroleum UST systems in Sections 9 and 11 of 20.5.6.~~601~~ NMAC *[These are sections on Requirements for UST Systems and Requirements for Piping.]*. Owners and operators shall install at hazardous substance UST systems one or more of the release detection requirements Subsection B of this section, and shall comply with the standards listed below as applicable.

B. Release detection at ~~new~~ hazardous substance UST systems installed on or after December 22, 1993, shall meet the following requirements.

[This was the deadline for hazardous substance USTs to install release detection, 53 FR 37194, September 23, 1988.]

(1) Owners and operators shall design, construct and install secondary containment systems to:

(a) contain regulated substances released from the tank system until they are detected and removed;

(b) prevent the release of regulated substances to the environment at any time during the operational life of the UST system; and

(c) be checked for evidence of a release monthly. The provisions of 40 CFR 265.193, Containment and Detection of Releases, may be used to comply with Paragraph (1) of Subsection B of this section.

(2) Double-walled tanks shall be designed, constructed, and installed to:

(a) contain a release from any portion of the inner tank within the outer wall; and

(b) detect the failure of the inner wall.

(3) External liners (including vaults) shall be designed, constructed, and installed to:

(a) contain 100 percent of the capacity of the largest tank within its boundary;

(b) prevent the interference of precipitation or groundwater intrusion with the ability to contain or detect a release of regulated substances; and

(c) surround the tank completely, ~~that is,~~ thereby preventing lateral as well as vertical migration of regulated substances.

(4) Underground piping shall be equipped with secondary containment that satisfies the requirements of Paragraph (1) of Subsection B of this section (for example: trench liners, or jacketing of double-walled pipe). In addition, underground piping that conveys regulated substances under pressure shall be equipped with an automatic line leak detector in accordance with Subsection A of 20.5.6.~~604~~ 24 NMAC.

[The new language with the example in Paragraph 4 is from 40 CFR 280.42(b)(4).]

[20.5.6.12 NMAC - Rp, 20.5.6.602 NMAC, x/xx/xx]

~~20.5.6.603 METHODS OF RELEASE DETECTION FOR TANKS: Owners and operators shall conduct each method of release detection for tanks used to meet the requirements of 20.5.6.601 NMAC in accordance with the following:~~

~~A. Inventory control for USTs or another test of equivalent performance shall be conducted monthly to detect a release of at least one percent of flow-through plus 130 gallons on a monthly basis in accordance with all of the following requirements:~~

~~(1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the UST are recorded each operating day.~~

~~(2) The equipment used is capable of measuring the level of regulated substance over the full range of the UST's height to the nearest one-eighth of an inch.~~

~~(3) The regulated substance inputs are reconciled with delivery receipts by measurement of the UST inventory volume before and after delivery.~~

~~(4) Deliveries are made through a drop tube that extends to within one foot of the UST bottom.~~

~~(5) Regulated substance dispensing is metered and recorded within the local standards for meter calibration or an accuracy of six cubic inches for every five gallons of regulated substance withdrawn.~~

~~(6) The measurement of any water level in the bottom of the UST is made to the nearest one-eighth of an inch at least once a month. Practices described in the American Petroleum Institute Publication RP1621, "Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of Subsection A of 20.5.6.603 NMAC.~~

~~B. Manual tank gauging for USTs shall meet all of the following requirements.~~

~~(1) Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours for tanks of 1,100 gallons or less nominal capacity and at least 44 hours for tanks greater than 1,100 gallons 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 leak is suspected and subject to the requirements of 20.5.7 NMAC if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table~~:

~~Nominal Tank Capacity~~	~~Weekly Standard (one test)~~	~~Monthly Standard (average of four tests)~~
~~550 gallons or less~~	~~10 gallons~~	~~5 gallons~~
~~551-1000 gallons~~	~~13 gallons~~	~~7 gallons~~
~~1001-2000 gallons~~	~~26 gallons~~	~~13 gallons~~

~~(a) underground storage tank with a nominal capacity of 550 gallons or less where the weekly standard for one test exceeds 10 gallons, or the monthly standard for 4 tests exceeds 5 gallons; or~~

~~(b) underground storage tank with a nominal capacity of 551 gallons through 1000 gallons where the weekly standard for one test exceeds 13 gallons or the monthly standard for 4 tests exceeds 7 gallons; or~~

~~(c) underground storage tank with a nominal capacity of 1001 gallons through 2000 gallons where the weekly standard for one test exceeds 26 gallons or the monthly standard for 4 tests exceeds 13 gallons; or~~

~~(5) Only regulated tanks of 550 gallons or less nominal capacity may use this as the sole method of release detection. Tanks of 551 to 2,000 gallons may use the method in place of manual inventory control in Subsection A of 20.5.6.603 NMAC. Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this part.~~

~~C. Tank tightness testing.~~

~~(1) For USTs, tank tightness testing or another test of equivalent performance shall be capable of detecting a 0.1 gallon per hour leak rate from any portion of the UST that routinely contains regulated substance while accounting for the effects of thermal expansion or contraction of the regulated substance, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.~~

~~(2) For ASTs, tank tightness testing or another test of equivalent performance shall be capable of detecting a 0.2 gallon per hour leak rate from any portion of the AST that routinely contains regulated substance while accounting for the effects of thermal expansion or contraction of the regulated substance, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.~~

~~D. Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control may be used for USTs or ASTs if 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.~~

~~E. For USTs but not for ASTs, testing or monitoring for vapors within the soil gas of the excavation zone shall meet all of 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 UST 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 UST.~~

~~(3) The measurement of vapors by the monitoring device is not rendered inoperative by the groundwater, 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 UST.~~

~~(5) The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the UST system, a component or components of that substance, or a tracer compound placed in the UST system.~~

~~(6) In the UST excavation zone, the site is assessed to ensure compliance with the requirements in Paragraphs (1) through (4) of Subsection E of 20.5.6.603 NMAC 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 a regulated substance.~~

~~(7) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.~~

~~F. For USTs but not for ASTs, testing or monitoring for liquids on the groundwater shall meet all of the following requirements.~~

~~(1) The regulated substance stored is immiscible in water and has a specific gravity of less than one.~~

~~(2) Groundwater is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil between the UST system and the monitoring wells or devices is not less than 0.01 centimeters per second, that is, 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 shall 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 groundwater 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 non-aqueous phase liquid on top of the groundwater 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 (1) through (5) of this subsection 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.~~

~~(8) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.~~

~~G. Interstitial monitoring between the storage tank 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 system that routinely contains regulated substance and also meets one of the following requirements:~~

~~(1) For double-walled storage tank systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains regulated substance, and the sampling or testing method complies with the requirements of the current edition of an industry code or standard approved in writing in advance by the department. The following may be used to comply with this requirement:~~

~~(a) Steel Tank Institute Standard F841, "Standard for Dual Wall Underground Storage Tanks;" or~~

~~(b) Steel Tank Institute Standard F921 "Standard for Aboveground Tanks with Integral Secondary Containment."~~

~~(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. The monitoring system shall meet all of the following requirements.~~

~~(a) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable, at least 1 x 10 (-6) centimeters per second for the regulated substance stored, to direct a release to the monitoring point and permit its detection.~~

~~(b) 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.~~

~~(c) For cathodically protected USTs, the secondary barrier shall be installed so that it does not interfere with the proper operation of the cathodic protection system.~~

~~(d) The groundwater, 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.~~

~~(e) The site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions.~~

~~(f) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.~~

~~(3) For USTs with an internally fitted liner, an automated device can detect a release between the inner wall of the UST and the liner, and the liner is compatible with the regulated substance stored.~~

~~(4) For ASTs inside secondary containment, owners and operators may use interstitial monitoring, provided that:~~

~~(a) either the ASTs are manufactured or upgraded to include a double-walled bottom which can be remotely monitored, or the ASTs are installed inside the secondary containment with an impervious barrier beneath the ASTs and the interstice between them can be remotely monitored;~~

~~(c) groundwater, soil moisture, or rainfall will not render the testing or sampling method used inoperative, which could result in a release going undetected for more than 30 days; and~~

~~(d) owners and operators conduct an annual test of the operation of the interstitial sensor in accordance with the manufacturer's requirements.~~

~~H. For ASTs, visual inspection may be used if all portions of the ASTs, including the AST bottoms, are completely visible, readily accessible, not in contact with the ground or soil and are inspected monthly. Owners and operators shall record in a log the date, time, initials of~~

~~the inspector, comments on the condition of each AST, and the results of each inspection. Owners and operators shall keep visual inspection logs available at the facility.~~
~~[20.5.6.603 NMAC - Rp, 20 NMAC.5.6.603, x/xx/xx]~~

20.5.6.13 INVENTORY CONTROL WITH TANK TIGHTNESS TESTING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks who use inventory control in conjunction with tank tightness testing ~~to meet the requirement for monthly monitoring for releases in 20.5.6. NMAC shall do so in accordance with all of the following~~ as release detection shall meet the following requirements.

A. Inventory control or another test of equivalent performance shall be conducted monthly to detect a release of at least one percent of flow-through plus 130 gallons on a monthly basis.

B. Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the UST are recorded each operating day.

C. The equipment used is capable of measuring the level of regulated substance over the full range of the UST's height to the nearest one-eighth of an inch.

D. The regulated substance inputs are reconciled with delivery receipts by measurement of the UST inventory volume before and after delivery.

E. Deliveries are made through a drop tube that extends to within one foot of the UST bottom.

F. Regulated substance dispensing is metered and recorded within the ~~local~~ state standards for meter calibration or an accuracy of six cubic inches for every five gallons of regulated substance withdrawn.

G. The measurement of any water level in the bottom of the UST is made to the nearest one-eighth of an inch at least once a month.

H. Practices described in the American Petroleum Institute Publication RP1621, "Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of 20.5.6.14 NMAC.

I. Owners and operators shall meet all the requirements for tank tightness testing in 20.5.6.15 NMAC.

[These requirements were formerly found in 20.5.6.603.A.]
[20.5.6.13 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.14 MANUAL TANK GAUGING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks who use manual tank gauging as release detection shall meet the following:

A. Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours ~~for tanks of 1,100 gallons or less nominal capacity and at least 44 hours for tanks greater than 1,100 gallons~~ during which no liquid is added to or removed from the tank. *[Subsection A was conformed to 40 CFR 280.43(b)(1).]*

B. Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period.

C. 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.

D. A leak is suspected and subject to the requirements of 20.5.7 NMAC if the variation between beginning and ending measurements exceeds any of the weekly or monthly standards as follows:

(1) underground storage tank with a nominal capacity of 550 gallons or less where the weekly standard for one test exceeds ten gallons, or the monthly standard for four tests exceeds five gallons. ~~or~~

(2) underground storage tank with a nominal capacity of 551 gallons through 1000 gallons where the weekly standard for one test exceeds thirteen gallons or the monthly standard for four tests exceeds seven gallons. ~~or~~

(3) underground storage tank with a nominal capacity of 1001 gallons through 2000 gallons where the weekly standard for one test exceeds 26 gallons or the monthly standard for four tests exceeds thirteen gallons.~~; or~~

E. Manual tank gauging may:

(1) be used as the sole method of release detection for regulated ~~Only regulated~~ underground tanks of 550 gallons or less nominal capacity. For these tanks, owners and operators ~~may use this as the sole method of release detection~~ need not use tank tightness testing as part of release detection~~.~~;

(2) be used in place of manual inventory control when it is used with tank tightness testing in compliance with 20.5.6.13 and 20.5.6.15 NMAC for ~~T~~tanks of 551 to 2,000 gallons ~~may use the~~is ~~method in place of manual inventory control 20.5.6.14 NMAC.~~; and

(3) not be used to meet the requirements of this part for ~~T~~tanks of greater than 2,000 gallons nominal capacity. ~~may not use this method to meet the requirements of this part.~~

[These requirements were formerly found in 20.5.6.603.B, but have been revised to clarify when tank tightness testing must be used with manual tank gauging as release detection.]

[20.5.6.14 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.15 TANK TIGHTNESS TESTING FOR USTS:

A. Tank tightness testing (or another test of equivalent performance) ~~must~~ shall 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. Owners and operators may not use tank tightness testing alone as a method of release detection.

[This was formerly in 20.5.6.603.C(1). The last sentence was added to clarify that this method may not be used alone as release detection.]

B. Owners and operators of UST systems shall provide the department with a copy of the report for all tank tightness testing conducted on their petroleum storage tank systems and the report shall include the following:

(1) name of the technician who performed the test;

(2) training and equivalent experience of the technician in the type of testing performed, including certification numbers and national association where certification was obtained or a detailed description of where and when the technician gained experience;

(3) brand name and model number of testing equipment used during the test, date the testing equipment was last calibrated and by whom;

(4) date of the test;

(5) duration of the test;

(6) results of the test.

[20.5.6.15 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.16 AUTOMATIC TANK GAUGING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks may use automatic tank gauging as a method of release detection if the automatic tank gauging system:

A. ~~The automatic tank gauging system~~ tests for the loss of product and can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains regulated substances~~.~~ ; and

B. conducts inventory control in accordance with 20.5.6.13 NMAC or another test of equivalent performance.

[20.5.6.16 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

[The new language is drafted to more closely follow the language in 40 CFR 280; the old requirement was found in 20.5.6.603.D.]

20.5.6.17 VAPOR MONITORING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks may use vapor monitoring or testing as a method of release detection as long as the testing or monitoring for vapors within the soil gas of the excavation zone meets all of the following requirements:

A. 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.

B. The stored regulated substance, or a tracer compound placed in the UST 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 UST.

C. The measurement of vapors by the monitoring device is not rendered inoperative by the groundwater, rainfall, or soil moisture or other known interferences so that a release could go undetected for more than 30 days.

D. The level of background contamination in the excavation zone will not interfere with the method used to detect releases from the UST.

E. The vapor monitors are designed and operated to detect any significant increase in concentration above background of the regulated substance stored in the UST system, a component or components of that substance, or a tracer compound placed in the UST system.

F. In the UST excavation zone, the site is assessed to ensure compliance with the requirements in Subsections A through D 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 a regulated substance.

G. Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

[This section formerly compiled in 20.5.6.603.E.]

[20.5.6.17 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.18 GROUNDWATER MONITORING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks may use groundwater monitoring as a method of release detection as long as the testing or monitoring for liquids on the groundwater meets all of the following requirements:

A. The regulated substance stored is immiscible in water and has a specific gravity of less than one.

B. Groundwater is never more than 20 feet from the ground surface and the hydraulic conductivity of the soil between the UST system and the monitoring wells or devices is not less than 0.01 centimeters per second (e.g., the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials).

C. The slotted portion of the monitoring well casing shall 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 groundwater conditions.

D. Monitoring wells shall be sealed from the ground surface to the top of the filter pack.

E. Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible.

F. The continuous monitoring devices or manual methods used can detect the presence of at least one-eighth of an inch of non-aqueous phase liquid on top of the groundwater in the monitoring wells.

G. Within and immediately below the UST system excavation zone, the site is assessed to ensure compliance with the requirements in Subsections A through E 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.

H. Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

[This section formerly compiled in 20.5.6.603.F.]

[20.5.6.18 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.19 INTERSTITIAL MONITORING REQUIREMENTS FOR USTS: Owners and operators of underground storage tanks may use interstitial monitoring between the UST and a secondary barrier immediately around and underneath ~~it may be used~~ the tank, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank system that routinely contains any regulated substance and also meets one of the following requirements:

A. For double-walled ~~storage tank~~ UST systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains a regulated substance, and the sampling or testing method complies with the requirements of the current edition of an industry code or standard approved ~~in writing~~ in advance by the department. Steel Tank Institute Standard F841, "Standard for Dual Wall Underground Storage Tanks" may be used to meet this requirement.

B. 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. The monitoring system shall meet all of the following requirements:

(1) The secondary barrier around or beneath the UST system consists of artificially constructed material that is sufficiently thick and impermeable (at least 1 x 10 (-6) centimeters per second for the regulated substance stored) to direct a release to the monitoring point and permit its detection.

(2) 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.

(3) For cathodically protected USTs, the secondary barrier shall be installed so that it does not interfere with the proper operation of the cathodic protection system.

(4) The groundwater, 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.

(5) The site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions.

(6) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

C. For USTs with an internally fitted liner, an automated device can detect a release between the inner wall of the UST and the liner, and the liner is compatible with the regulated substance stored.

[This section formerly compiled in 20.5.6.603.G.]

[20.5.6.19 NMAC - Rp, 20.5.6.603 NMAC, xx/xx/200x]

20.5.6.20 VISUAL INSPECTION REQUIREMENTS FOR ASTS: Owners and operators of ASTs may use visual inspection as a method of release detection if:

A. ~~A~~all portions of the ASTs, including the AST bottoms~~, shall be~~ are completely visible, readily accessible, not in contact with the ground or soil and are inspected monthly.

[This requirement was in 20.5.6.600.D(3) and 20.5.6.603.H.]

B. ~~O~~owners and operators ~~shall~~ maintain a written log of the visual inspections for each AST conducted monthly to include the following:

(1) the date and time the inspection was conducted;

(2) name and signature of the person who conducted the inspection;

(3) comments on the condition of each AST;

(4) the results of each inspection; and

[Formerly codified in 20.5.6.603.H.]

(5) the volume of water found in the AST and if the water has been removed from the tank.

[Paragraph 5 is new and will ensure owners/operators meet and document the requirement in 20.5.5.8.F to check monthly for water in a tank and properly dispose of any found.]

C. ~~O~~owners and operators ~~shall~~ keep visual inspection logs available at the facility.

[This requirement was formerly found in 20.5.6.603.H.]

[20.5.6.20 NMAC - N, xx/xx/200x]

20.5.6.21 INTERSTITIAL MONITORING REQUIREMENTS FOR ASTS: Owners and operators of ASTs may use interstitial monitoring between the AST and a secondary barrier immediately around and underneath the tank, but only if the tank system meets all of the following requirements:

A. The ASTs are manufactured or upgraded to include a double-walled bottom 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 can be remotely monitored, or the ASTs are installed inside secondary containment with an impervious barrier

beneath the ASTs meeting the requirements of 20.5.4.27 NMAC and the interstice between them can be remotely monitored.

B. The monitoring system between the AST and the secondary barrier shall meet all of the following requirements;

(1) For cathodically protected ASTs, the secondary barrier shall be installed so that it does not interfere with the proper operation of the cathodic protection system.

(2) The groundwater, 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.

(3) The site is assessed to ensure that the secondary barrier is always above the groundwater and not in a 25-year flood plain, unless the barrier and monitoring designs are for use under such conditions.

(4) The locations and ports of ~~M~~monitoring wells are clearly marked and secured to avoid unauthorized access and tampering.

C. Owners and operators conduct an annual test of the operation of the interstitial sensor in accordance with the manufacturer's requirements or in accordance with the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory.

[This section formerly compiled in 20.5.6.603.G.]

[20.5.6.21 NMAC – N, xx/xx/200x]

20.5.6.22 AUTOMATIC TANK GAUGING REQUIREMENTS FOR ASTS: Owners and operators of ASTs may use automatic tank gauging as a method of release detection if the automatic tank gauging system:

~~B~~A. ~~The automatic tank gauging system~~ tests for the loss of product and can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains regulated substances~~.~~ ; and

~~A~~B. can conduct inventory control or another test of equivalent performance in accordance with the following:

(1) Inventory volume measurements for regulated substance inputs, withdrawals, and the amount still remaining in the AST are recorded each operating day.

(2) The equipment used is capable of measuring the level of regulated substance over the full range of the AST's height to the nearest one-eighth of an inch.

(3) The regulated substance inputs are reconciled with delivery receipts by measurement of the AST inventory volume before and after delivery.

(4) Deliveries are made through a drop tube that extends to within one foot of the AST bottom, unless the AST is bottom loaded.

(5) Regulated substance dispensing is metered and recorded within the ~~local~~ state standards for meter calibration or an accuracy of six cubic inches for every five gallons of regulated substance withdrawn.

(6) The measurement of any water level in the bottom of the AST is made to the nearest one-eighth of an inch at least once a month.

(7) Practices described in the American Petroleum Institute Publication RP1621, "Bulk Liquid Stock Control at Retail Outlets," may be used, where applicable, as guidance in meeting the requirements of this section.

[Subsection A is new and parallels the UST requirements in 20.5.6.14. Subsection B was found in 20.5.6.603.D.]

[20.5.6.22 NMAC – N, xx/xx/200x]

20.5.6.~~604~~23 METHODS OF RELEASE DETECTION FOR PIPING: Each method of release detection for piping used to meet the requirements of 20.5.6.~~601~~ NMAC shall comply with the equipment manufacturer's recommendations, shall be appropriate for the type and length of piping, and shall comply 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. Owners and operators shall ~~be~~ conduct~~ed~~ release detection in accordance with the following requirements:

[Inspectors have found that owners and operators use line leak detectors and line tightness tests for long lengths of piping, where the detectors and tests cannot accurately determine if a release is occurring. Use of this method and equipment in this situation is not recommended by the manufacturer, and does not meet any industry code or standard.]

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 may be used only if they detect leaks of three gallons per hour at 10 pounds per square inch line pressure within one hour. Owners and operators shall conduct an annual test of the operation of the leak detector in accordance with the manufacturer's requirements.

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. Any of the methods in ~~Subsections E through G of 20.5.6.603 NMAC~~ Sections 16 through 19 of 20.5.6 NMAC may be used if they are designed to detect a release from any portion of underground piping that routinely contains regulated substances.

D. Interstitial monitoring. Owners and operators may use interstitial monitoring if they ensure that interstitial monitoring for double-walled piping, whether under pressure or under suction, is approved in advance ~~in writing~~ by the department, and that the interstitial monitoring: ~~complies with either:~~

(1) complies with ~~the piping manufacturer's requirements; or~~ 20.5.6.19 NMAC for USTs or 20.5.6.21 NMAC for ASTs; and

~~(b) (2) the current edition of an industry standard or code of practice developed by a nationally recognized association or independent testing laboratory~~;

(~~3~~2) shall automatically shut off the turbine if the sensors used for interstitial monitoring detect regulated substances or water within the interstice ~~of~~ or in the containment sumps associated with the piping.

(3) For ASTs and USTs in operation on *[the effective date of these regulations]*, owners and operator shall have until July 1, 2011 to meet the requirements of Paragraph 3 of this subsection. Owners and operators that install tank systems after *[the effective date of these regulations]* shall comply with all requirements of this subsection.

[If product is in the interstice of piping, then the system has failed, the owner/operator is no longer in compliance and must respond immediately to prevent a release to the environment. In some situations, adding automatic shut-offs might cost up to $2,000 per line as a retro-fit, but most will be installed when piping is installed and will be more cost-effective (in the range of $200-300 per tank turbine). In response to public comment, we added a phase-in period for existing systems. Automatic shut-offs are a relatively new technology not mentioned in the federal regulations but the use of which is becoming increasingly frequent.]

E. For above ground storage tanks, visual inspection may be used for piping if all portions of the piping are completely visible, readily accessible, not in contact with the ground or soil, and are inspected monthly. Owners and operators shall ~~record in a log the date, time, initials of the inspector, comments on the condition of the piping, and the results of each inspection. Owners and operators shall keep visual inspection logs available at the facility~~ keep a log of visual inspection of piping that meets the requirements of Subsections B and C of 20.5.6.20 NMAC.

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

(1) Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems;"

(2) Petroleum Equipment Institute RP200, "Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling;"

(3) American Petroleum Institute Publication RP 1615, "Installation of Underground Petroleum Storage Systems;"

(4) American Petroleum Institute 570, "Pipe Inspection Code: Inspection Repair, Alteration, and Rerating of In-Service Piping Systems;" and

(5) American Society of Mechanical Engineering Standard B31.3, "Process Piping."

[20.5.6.23 NMAC - Rp, 20.5.6.604 NMAC, xx/xx/200x]

20.5.6.~~605~~24 ALTERNATE METHODS:

A. If owners and operators want to install another method of release detection equipment for tanks or piping required in ~~601 through 604 of~~ 20.5.6 NMAC in accordance with the current edition of an industry code or standard, 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. ~~Owners and operators may propose inventory control as a method of leak detection for ASTs, which will only be approved on a case-by-case basis by the department in accordance with Subsections B, C or D of 20.5.6.605 NMAC~~. 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 standard or code supporting its use and 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 as the methods provided in this section.~~

~~C~~.B. Another type of release detection method, or combination of methods, may be used if approved pursuant to this section, and if, for either ASTs or USTs, it can detect a 0.2 gallon per hour leak rate monthly or a release of 150 gallons within a month from a tank with a probability of detection of 0.95 and a probability of false alarm of 0.05. Owners and operators

may propose inventory control as a method of leak detection for ASTs, which will only be approved on a case-by-case basis by the department in accordance with Subsections B and C of this section.

~~D~~.C. The department may approve another method if owners and operators can demonstrate that the method can detect a release as effectively as any of the applicable methods allowed in ~~Subsections C through G of~~ 20.5.6.~~603~~ ~~12~~ NMAC. In comparing methods, the department 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 shall comply with any conditions imposed by the department on its use to ensure the protection of public health, safety and welfare and the environment. 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 as the methods provided in this section.

D. In addition to the requirements in Subsections B and C of this section, any request for an alternate method of release detection for hazardous substance UST systems, shall also include information on effective corrective action technologies, health risks and chemical and physical properties of the stored substance, and the characteristics of the UST site.

[This new Subsection D is from 40 CFR 280.42(b)(5)(ii), and addresses the increased risks posed by certain hazardous substances. In order to be equivalent to federal regulation, this requirement should be added.]

[20.5.6.24 NMAC - Rp, 20.5.6.605 NMAC, xx/xx/200x]

[The bureau provides an optional form that may be used to request approval of an alternate method.]

20.5.6.~~606~~25 RELEASE DETECTION RECORDKEEPING:

A. All storage tank system owners and operators shall maintain records in accordance with 20.5.5.~~504~~ NMAC demonstrating compliance with all applicable requirements of this part. If the owner and operator of a storage tank are separate persons, only one person is required to maintain the records required by this section; however, both parties are liable in the event of noncompliance.

B. These records shall meet all of the following requirements:

(1) 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, shall be maintained for five years, or for another reasonable period of time approved in advance of installation ~~in writing~~ by the department, from the date of installation.

(2) The results of any sampling, testing, or monitoring shall be maintained for at least one year, or for another reasonable period of time approved in advance of installation ~~in writing~~ by the department, except that the results of tank tightness testing conducted in accordance with ~~Subsection C of~~ 20.5.6.~~603~~ NMAC shall be retained until the next test is conducted.

(3) Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site shall be maintained for at least one year after the servicing work is completed, or for another reasonable time period approved in advance of installation ~~in writing~~ by the department. Any schedules of required calibration and maintenance

provided by the release detection equipment manufacturer shall be retained for five years from the date of installation.
[20.5.6.25 NMAC - Rp 20.5.6.606 NMAC, xx/xx/200x]

HISTORY OF 20.5.6 NMAC:
Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center and archives.
EIB/USTR-6, Underground Storage Tank Regulations - Part VI - Release Detection, 9/12/88.
EIB/USTR-6, Underground Storage Tank Regulations - Part VI - Release Detection, 2/14/89.
EIB/USTR-6, Underground Storage Tank Regulations - Part VI - Release Detection, 8/4/89.
EIB/USTR-6, Underground Storage Tank Regulations - Part VI - Release Detection, 6/12/90.
EIB/USTR-6, Underground Storage Tank Regulations - Part VI - Release Detection, 6/26/90.

History of Repealed Material:

Other History: