

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 5 PETROLEUM STORAGE TANKS
PART 114 AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS

20.5.114.1 ISSUING AGENCY: New Mexico Environmental Improvement Board.
[20.5.114.1 NMAC - N, 07/24/2018]

20.5.114.2 SCOPE: This part applies to owners and operators of airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and hybrid storage tank systems as provided in 20.5.101 NMAC. If the owner and operator of an airport hydrant fuel distribution system, UST system with field-constructed tanks, or hybrid storage tank system 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.
[20.5.114.2 NMAC - N, 07/24/2018]

20.5.114.3 STATUTORY AUTHORITY: This part is promulgated pursuant to the provisions of the Hazardous Waste Act, Sections 74-4-1 through 74-4-14 NMSA 1978; and the general provisions of the Environmental Improvement Act, Sections 74-1-1 through 74-1-17 NMSA 1978.
[20.5.114.3 NMAC - N, 07/24/2018]

20.5.114.4 DURATION: Permanent.
[20.5.114.4 NMAC - N, 07/24/2018]

20.5.114.5 EFFECTIVE DATE: July 24, 2018, unless a later date is indicated in the bracketed history note at the end of a section.
[20.5.114.5 NMAC - N, 07/24/2018]

20.5.114.6 OBJECTIVE: The purpose of 20.5.114 NMAC is to ensure that airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and hybrid storage tank systems are installed, modified, repaired, operated, and maintained to minimize releases from storage tank systems, to ensure that releases 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.
[20.5.114.6 NMAC - N, 07/24/2018]

20.5.114.7 DEFINITIONS: The definitions in 20.5.101 NMAC apply to this part.
[20.5.114.7 NMAC - N, 07/24/2018]

20.5.114.8 to 20.5.114.1399 [RESERVED]

20.5.114.1400 GENERAL REQUIREMENTS FOR AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS:

A. Owners and operators of airport hydrant fuel distribution systems, field-constructed tanks, and hybrid storage tank systems shall comply with the requirements of 20.5.114 NMAC in addition to all the applicable requirements in the rest of 20.5 NMAC.

B. Owners and operators of USTs that are part of an airport hydrant fuel distribution system shall comply with the registration requirements in 20.5.102 NMAC no later than three years after the effective date of the regulations.

C. Owners and operators of USTs with field-constructed tanks shall comply with the registration requirements in 20.5.102 NMAC no later than three years after the effective date of the regulations.

D. Owners and operators of ASTs and USTs that are part of hybrid storage tank systems shall comply with the registration requirements in 20.5.102 NMAC no later than three years after the effective date of the regulations.

E. Owners and operators of airport hydrant fuel distribution systems, field-constructed tanks, and hybrid storage tank systems shall comply with the following requirements on the effective date of the regulations:

- (1) release reporting requirements in 20.5.118 NMAC;

- (2) corrective action requirements in 20.5.119 through 20.5.123 NMAC;
- (3) closure requirements in 20.5.115 NMAC;
- (4) financial responsibility requirements in 20.5.117 NMAC; and
- (5) lender liability requirements in 20.5.124 NMAC.

F. Owners and operators of airport hydrant fuel distribution systems, field-constructed tanks, and hybrid storage tank systems shall have new storage tank systems and upgrades to existing storage tank systems designed and the construction overseen by a professional engineer with training and experience in these types of storage tank systems. The professional engineer shall prepare, sign, and stamp as-built drawings, and the owner and operator shall maintain records documenting compliance with this requirement in accordance with 20.5.107 NMAC and 20.5.110 NMAC.

(1) Owners and operators shall submit a set of plans to the department at least 60 days in advance of the start of construction.

(2) Owners and operators who install new or upgrade existing airport hydrant fuel distribution systems, field-constructed tanks, and hybrid storage tank systems shall hire a contractor who employs a person with at least two years of experience in the installation of these types of systems.

(3) Owners and operators may use the *Unified Facilities Criteria (UFC) 3-460-01, "Design: Petroleum Fuel Facilities"* when designing, constructing and installing these types of systems.

G. Owners and operators of hybrid storage tank systems shall do one of the following:

(1) submit to the department no later than one year after the effective date of these regulations:

(a) an approval from the New Mexico state fire marshal's office for the hybrid storage tank system;

(b) an approval from the New Mexico state fire marshal's office for an AST at a retail fueling facility that exceeds the size limit on ASTs for these facilities, as set forth in the international fire code; and

(c) documentation that the UST can withstand the head pressure from the AST anytime a transfer of regulated substance is made. The documentation must include an evaluation by a New Mexico professional engineer who has education and experience in petroleum storage tank systems; or

(2) disconnect the piping feeding the UST system from the AST and permanently close the AST system in accordance with the requirements in 20.5.114.1410 NMAC and 20.5.115 NMAC.

[20.5.114.1400 NMAC - N, 07/24/2018]

20.5.114.1401 UPGRADE REQUIREMENTS FOR EXISTING AIRPORT HYDRANT FUEL DISTRIBUTION SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS:

No later than three years after the effective date of the regulations, all airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and hybrid storage tank systems installed prior to the effective date of these regulations shall comply with the following requirements:

A. Above ground storage tank systems. Tanks greater than 10 years old without cathodic protection must be assessed to ensure the tank is structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment must be by internal inspection or another method determined by the department to adequately assess the tank for structural soundness and corrosion holes. AST systems or system components found to be structurally unsound or to have corrosion holes or damage shall be replaced in accordance with the requirements for a new AST system in 20.5.109 NMAC or permanently closed in accordance with 20.5.115 NMAC. AST systems shall be protected from corrosion in accordance with 20.5.109 NMAC and 20.5.110 NMAC and shall comply with spill and overfill prevention equipment requirements in accordance with 20.5.109 NMAC and 20.5.110 NMAC.

B. Underground storage tank systems. UST system components in contact with an electrolyte and that routinely contain regulated substances shall meet one of the following:

(1) be constructed of a non-corrodible material or steel clad with a non-corrodible material that meets the performance standards in 20.5.106.603 NMAC and 20.5.106.609 NMAC; or

(2) be constructed of metal and cathodically protected in accordance with the requirements in 20.5.106 NMAC, 20.5.107 NMAC, and in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and meet the following:

(a) Tanks greater than 10 years old without cathodic protection must be assessed to ensure the tank is structurally sound and free of corrosion holes prior to adding cathodic protection. The assessment

must be by internal inspection or another method determined by the department to adequately assess the tank for structural soundness and corrosion holes.

(b) Existing steel tanks shall comply with the upgrade requirements in 20.5.106.607 NMAC.

C. Piping.

(1) Metal piping on an airport hydrant system or field-constructed UST system that is in contact with an electrolyte must be cathodically protected in accordance with requirements of 20.5.106 NMAC, 20.5.107 NMAC, and in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory.

(2) Metal underground piping or piping in contact with an electrolyte on a hybrid storage tank system shall be either secondarily contained or replaced with double walled non-corrodible piping with containment sumps at both ends.

D. Spill and overflow prevention equipment. Owners and operators shall comply with the spill and overflow prevention requirements as follows:

(1) AST systems with capacities of less than 55,000 gallons and greater than 1320 gallons and associated with airport hydrant systems or USTs with field-constructed tanks shall meet the requirements for spill and overflow prevention equipment in 20.5.109.910 NMAC;

(2) UST systems associated with airport hydrant systems or USTs with field-constructed tanks shall meet the requirements for spill and overflow prevention equipment in 20.5.106.613 NMAC.

E. Hybrid storage tank systems.

(1) Any UST receiving deliveries of regulated substance by a remote fill pipe connected to an above ground storage tank shall be equipped with a containment sump at the connection to the UST.

(2) Any remote fill piping shall be constructed of double walled piping and be interstitially monitored in accordance with 20.5.108.811 NMAC or 20.5.108.813 NMAC as applicable.

(3) Remote fill piping shall be equipped with a transition sump where the piping enters the ground from the AST.

(4) Any UST receiving deliveries of regulated substance by a remote fill pipe connected to an AST shall be equipped with redundant overflow prevention and pressure regulating devices to include the following:

(a) an overflow prevention device that shall activate an audible and visual alarm at eighty-five percent of the UST capacity;

(b) an overflow prevention device that shall automatically restrict fuel delivery without increasing pressure on the UST at ninety percent of the UST capacity;

(c) an overflow prevention device that shall automatically shut off the delivery at ninety-five percent of the UST capacity;

(d) devices that monitor and limit both the flow and pressure placed on the UST and the piping from the AST to the UST during the delivery of regulated substance such that the delivery pipe pressure shall not exceed normal operating pressure in accordance with the manufacturer's specification; and

(e) a tank venting system, which must be adequately sized to ensure that atmospheric pressure is continuously maintained, including during filling and emptying of tank.

F. Secondary containment. Owners and operators shall comply with the secondary containment requirements as follows:

(1) Tanks and piping for UST systems with field-constructed tanks replaced after the effective date of these regulations shall be secondarily contained upon installation for tanks with capacities of 50,000 gallons or less that are not part of an airport hydrant system.

(2) Secondary containment shall not be required for piping on UST systems with field-constructed tanks that are replaced after the effective date of these regulations where the tank capacity is greater than 50,000 gallons.

(3) Hydrant pits installed on existing airport hydrant systems after the effective date of these regulations shall be secondarily contained.

G. Owners and operators shall use one of the following codes of practice to comply with corrosion protection requirements in this section:

(1) *NACE International Standard Practice SP 0285, "External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection";*

(2) *NACE International Standard Practice SP 0169, "Control of External Corrosion on Underground or Submerged Metallic Piping Systems";*

(3) *National Leak Prevention Association Standard 631, Chapter C, "Internal Inspection of Steel Tanks for Retrofit of Cathodic Protection";* or

(4) *American Society for Testing and Materials Standard G158, "Standard Guide for Three Methods of Assessing Buried Steel Tanks".*

H. In addition to the industry codes of practice and standards listed in 20.5.106 NMAC and 20.5.109 NMAC owners and operators may use *Unified Facilities Criteria (UFC) 3-460-01, "Design: Petroleum Fuel Facilities"* to comply with these requirements.

[20.5.114.1401 NMAC - N, 07/24/2018]

20.5.114.1402 ADDITIONAL REQUIREMENTS FOR HYBRID STORAGE TANK SYSTEMS.

A. Owners and operators of hybrid storage tank systems shall, no later than one year after the effective date of these regulations, install redundant automatic shut off and manual override equipment on the piping transferring a regulated substance from the AST to the UST in order to prevent overfills.

B. Owners and operators of existing hybrid storage tank systems who replace the underground piping on or after the effective date of these regulations shall install double walled piping including but not limited to the underground remote fill piping. Containment sumps shall be installed at both ends of the underground piping. The new underground piping shall be interstitially monitored monthly in accordance with 20.5.108.811 NMAC or 20.5.8.813 NMAC as applicable upon installation.

[20.5.114.1402 NMAC - N, 07/24/2018]

20.5.114.1403 NEW AIRPORT HYDRANT SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS.

A. Owners and operators of airport hydrant systems and field-constructed USTs installed after the effective date of the regulations shall comply with all applicable parts of 20.5 NMAC upon installation.

B. Airport hydrant systems shall not be required to meet secondary containment requirements for piping.

C. UST systems with field-constructed tanks with a tank capacity greater than 50,000 gallons shall not be required to meet secondary containment requirements for piping.

D. Owners and operators shall not install hybrid storage tank systems after the effective date of these regulations.

[20.5.114.1403 NMAC - N, 07/24/2018]

20.5.114.1404 OPERATION AND MAINTENANCE OF AIRPORT HYDRANT SYSTEMS, USTS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS. Owners and operators shall comply with the requirements in 20.5.107 NMAC and 20.5.110 NMAC no later than three years after the effective date of these regulations for existing systems and upon installation for new systems. In addition to the monthly inspection requirements in 20.5.107.707 NMAC, owners and operators must inspect the following additional areas for airport hydrant systems at least once every 30 days if confined space entry per the occupational safety and health administration (see 29 CFR part 1910) is not required or at least annually if confined space entry is required and keep documentation of the inspection per 20.5.107.714 NMAC.

A. Hydrant pits--visually check for any damage; remove any liquid or debris; and check for any leaks, and

B. Hydrant piping vaults--check for any hydrant piping leaks.

[20.5.114.1404 NMAC - N, 07/24/2018]

20.5.114.1405 OPERATOR TRAINING REQUIREMENTS FOR AIRPORT HYDRANT SYSTEMS, UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS, AND HYBRID STORAGE TANK SYSTEMS:

Owners and operators shall comply with the requirements in 20.5.104 NMAC no later than three years after the effective date of these regulations for existing systems and upon installation for new systems.

[20.5.114.1405 NMAC - N, 07/24/2018]

20.5.114.1406 DEADLINE FOR IMPLEMENTATION OF RELEASE DETECTION: Owners and operators of existing airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and hybrid storage tank systems shall meet release detection requirements described in this part no later than three years after the effective date of these regulations.

[20.5.114.1406 NMAC - N, 07/24/2018]

20.5.114.1407 METHODS OF RELEASE DETECTION FOR UST SYSTEMS WITH FIELD-CONSTRUCTED TANKS.

A. Owners and operators of field-constructed tanks with a capacity less than or equal to 50,000 gallons shall meet the release detection requirements in 20.5.108 NMAC.

B. Owners and operators of field-constructed tanks with a capacity greater than 50,000 gallons shall meet either the requirements in 20.5.108 NMAC (except 20.5.108.806 NMAC and 20.5.108.807 NMAC shall be combined with inventory control as stated below) or use one or a combination of the following alternative methods of release detection:

- (1) conduct an annual tank tightness test that can detect a 0.5 gallon per hour leak rate;
- (2) use an automatic tank gauging system that can detect a leak rate less than or equal to one gallon per hour to perform release detection at least every 30 days. This method shall be combined with a tank tightness test that can detect a 0.2 gallon per hour leak rate that is performed at least every three years;
- (3) use an automatic tank gauging system that can detect a leak rate less than or equal to two gallons per hour to perform release detection at least every 30 days. This method shall be combined with a tank tightness test that can detect a 0.2 gallon per hour leak rate that is performed at least every two years;
- (4) perform vapor monitoring (conducted in accordance with 20.5.108.806 NMAC for a tracer compound placed in the storage tank system) capable of detecting a 0.1 gallon per hour leak rate at least every two years;
- (5) perform inventory control (conducted in accordance with department of defense *Directive 4140.25-M; ATA Airport Fuel Facility Operations and Maintenance Guidance Manual*; or equivalent procedures) at least every 30 days that can detect a leak equal to or less than 0.5 percent of flow-through; and
 - (a) perform a tank tightness test that can detect a 0.5 gallon per hour leak rate at least every two years; or
 - (b) perform vapor monitoring or groundwater monitoring (conducted in accordance with 20.5.108.806 NMAC and 20.5.108.807 NMAC, respectively, for the stored regulated substance) at least every 30 days.

[20.5.114.1407 NMAC - N, 07/24/2018]

20.5.114.1408 METHODS OF RELEASE DETECTION FOR PIPING.

A. Owners and operators of underground piping associated with USTs with field-constructed tanks less than or equal to 50,000 gallons shall meet the release detection requirements in 20.5.108 NMAC.

B. Owners and operators of underground piping associated with airport hydrant systems and USTs with field-constructed tanks greater than 50,000 gallons shall follow either the requirements in 20.5.108 NMAC (except 20.5.108.806 NMAC and 20.5.108.807 NMAC shall be combined with inventory control as stated below) or use one or a combination of the following alternative methods of release detection:

- (1) Perform a semiannual or annual line tightness test at or above the piping operating pressure in accordance with the table below.

Maximum Leak Detection Rate Per Test Section Volume		
Test Section Volume (Gallons)	Semiannual Test - Leak Detection Rate Not to Exceed (Gallons Per Hour)	Annual Test - Leak Detection Rate Not to Exceed (Gallons Per Hour)
< 50,000	1.0	0.5
≥ 50,000 to < 75,000	1.5	0.75
≥ 75,000 to < 100,000	2.0	1.0
≥ 100,000	3.0	1.5

(2) Piping segment volumes greater than or equal to 100,000 gallons not capable of meeting the maximum 3.0 gallon per hour leak rate for the semiannual test shall test according to the following schedule:

- (a) First test shall be conducted no later than three years after the effective date of these regulations and the leak rate the test shall be no greater than six gallons per hour.
- (b) Second test shall be conducted no later than six years after the effective date of these regulations and the leak rate for the test shall be no greater than six gallons per hour.

(c) Third test shall be conducted no later than seven years after the effective date of these regulations and the leak rate for the test shall be three gallons per hour.

(d) Subsequent tests conducted after seven years from the effective date of these regulations shall be semiannual or annual and conducted in accordance with Subparagraph (1) of this section.

(3) Perform vapor monitoring (conducted in accordance with 20.5.108.806 NMAC for a tracer compound placed in the storage tank system) capable of detecting a 0.1 gallon per hour leak rate at least every two years;

(4) Perform inventory control (conducted in accordance with department of defense *Directive 4140.25-M; ATA Airport Fuel Facility Operations and Maintenance Guidance Manual*; or equivalent procedures) at least every 30 days that can detect a leak equal to or less than 0.5 percent of flow-through; and

(a) perform a line tightness test (conducted in accordance with Paragraph (1) of this section using the leak rates for the semiannual test) at least every two years; or

(b) perform vapor monitoring or groundwater monitoring (conducted in accordance with 20.5.108.806 NMAC and 20.5.108.807 NMAC, respectively, for the stored regulated substance) at least every 30 days; or

(5) Another method approved by the implementing agency if the owner and operator can demonstrate that the method can detect a release as effectively as any of the methods allowed in Paragraphs (1) through (4) of this section. In comparing methods, the implementing agency shall consider the size of release that the method can detect as well as the frequency and reliability of detection.

C. Owners and operators of hybrid storage tank systems shall meet release detection requirements for the piping between the above ground tank and the underground tank as follows:

(1) existing above ground piping may be monthly monitored by use of visual inspection if the requirements in 20.5.111.1102 NMAC are met; or

(2) existing underground piping shall meet the requirements for release detection in 20.5.108 NMAC.

[20.5.114.1408 NMAC - N, 07/24/2018]

20.5.114.1409 RELEASE REPORTING: Owners and operators shall report any suspected or confirmed releases to the department in accordance with the requirements in 20.5.118 NMAC.

[20.5.114.1409 NMAC - N, 07/24/2018]

20.5.114.1410 CLOSURE REQUIREMENTS: Owners and operators of airport hydrant fuel distribution systems, UST systems with field-constructed tanks, and hybrid storage tank systems shall comply with closure requirements in 20.5.115 NMAC for temporary closure, return to service, and permanent closures.

A. Owners and operators of hybrid storage tank systems shall permanently close any above ground storage tanks in accordance with the requirements in 20.5.115.1502 NMAC within 12 months of placing them in temporary closure. Once owners and operators have placed the above ground storage tanks into temporary closure they can no longer return them to service.

B. Owners and operators shall use the *Unified Facilities Criteria (UFC) 3-460-01, "Design: Petroleum Fuel Facilities"* to comply with the requirements in this section.

[20.5.114.1410 NMAC - N, 07/24/2018]

20.5.114.1411 APPLICABILITY OF CLOSURE REQUIREMENTS TO PREVIOUSLY CLOSED STORAGE TANK SYSTEMS: When directed by the department, the owner and operator of an UST system with field-constructed tanks, airport hydrant system, or hybrid storage tank system permanently closed before the effective date of these regulations must assess the excavation zone and close the storage tank system in accordance with 20.5.115 NMAC if releases from the storage tank system may, in the judgment of the department, pose a current or potential threat to human health and the environment.

[20.5.114.1411 NMAC - N, 07/24/2018]

20.5.114.1412 ALTERNATE METHOD REQUEST: Owners and operators of airport hydrant fuel distribution systems and UST systems with field-constructed tanks shall comply with either 20.5.106.617 NMAC, 20.5.107.713 NMAC, 20.5.109.920 NMAC, and 20.5.110.1014 NMAC when submitting an alternate methods request.

[20.5.114.1412 NMAC - N, 07/24/2018]

20.5.114.1413 RECORDKEEPING: Owners and operators shall maintain records, including release detection records, according to the recordkeeping requirements in 20.5.107.714 NMAC, 20.5.108.815 NMAC, 20.5.110.1015 NMAC and 20.5.111.1111 NMAC.

[20.5.114.1413 NMAC - N, 07/24/2018]

20.5.114.1414 REPORTING: Owners and operators shall meet the reporting requirements in 20.5.107.715 NMAC, 20.5.108.816 NMAC, 20.5.110.1016 and 20.5.111.1112 NMAC.

[20.5.114.1414 NMAC - N, 07/24/2018]

History of 20.5.114 NMAC [RESERVED]