

The "Pit Rule"

Management of Drilling and Oil Field Waste in New Mexico

New Mexico
Energy, Minerals, and Natural Resources Department
Oil Conservation Division
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Artesia, New Mexico
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Farmington, New Mexico
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OCD will schedule another Pit Rule training session if this session is

“standing room only.”

Please sign in on the alternate training session register by the front desk if you were unable to attend this session.

New Mexico Oil Conservation Division 19.15.17 NMAC

19.15.17 NMAC specifies the requirements that operators must follow to properly site, design and construct, operate, and close pits, closed-loop systems, below-grade tanks, and sumps used in connection with oil and gas operations.

PERMIT REQUIRED

19.15.17.8 NMAC

Permits are required to construct or use the following:

- Temporary Pits (Drilling, Workover, Cavitation, and Emergency Pits)
- Closed-loop Systems
- Permanent Pits
- Below-grade Tanks
- Proposed Alternative Methods
- Existing operations that are not currently permitted
- Existing operations that require closure and permitting of new operations that comply with the provisions of 19.15.17 NMAC
- Approved APD's where the pit, below-grade tank, or closed-loop system has not been constructed.

PERMIT REQUIRED

19.15.17.8 NMAC

Highlights within the provision:

- The requirements within this section are not open to an exception.
- Unlined permanent pits are prohibited and the division shall not issue a permit for an unlined permanent pit.
- Operators requesting a permit for a closed-loop system that uses a temporary pit shall comply with the requirements for temporary pits.
- The division may issue a single permit for all pits, below-grade tanks, closed-loop systems or division-approved alternative methods associated with a single application for permit to drill.

PERMIT APPLICATION

19.15.17.9 NMAC

Submittal of a permit application is required for the following:

- Existing operations that are not currently permitted;
 - Below-grade tanks
 - Unpermitted and registered permanent pits
- Existing operations that require closure and permitting of updated operations that comply with the provisions of 19.15.17 NMAC;
 - Unpermitted, registered, and permitted unlined permanent pits
- Modifications; and
 - Permitted below-grade tanks and permitted permanent pits
- New operations.

PERMIT APPLICATION

19.15.17.9 NMAC

- An operator shall use form C-144 to apply to the division for a permit.
- The operator shall submit the C-144 either separately or as an attachment to a permit application for a facility with which the permitted operation will be associated.
- For upstream facilities, the operator may submit a C-144 separately or as an attachment to an application for a well permit (form C-101 or C-103).
- An applicant or operator shall file an application and attach the appropriate documents with the C-144 for a permit.
- Form C-144 is available on the OCD website:
<http://www.emnrd.state.nm.us/oed>

PERMANENT PIT PERMIT APPLICATIONS

The application shall include:

- Certified engineering designs
- Quality Control/Quality Assurance Construction and Installation Plan
- Operating and Maintenance Plan
- Hydrogeologic Report
- Siting Criteria Compliance Demonstrations
- Closure Plan
- Dike Protection and Structural Integrity Design
- Leak Detection Design
- Liner Specifications and Compatibility Assessment
- Freeboard and Overtopping Prevention Plan
- Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Climatological Factors Assessment
- Monitoring and Inspection Plan
- Erosion Control Plan

TEMPORARY PIT PERMIT APPLICATIONS

The application shall include:

- Operating and Maintenance Plan
- Hydrogeologic Data
 - Statements that are supported by a citation of publication or attachments of supporting documentation.
- Siting Criteria Compliance Demonstrations
- Closure Plan
 - Design Plan: On-site Trench (required if on-site trench burial is proposed)
- Design Plan
 - The operator may incorporate, by reference, a standard design for multiple temporary pits that the operator files with the application or has previously filed.

CLOSED-LOOP SYSTEM PERMIT APPLICATIONS

The application shall include:

- Operating and Maintenance Plan
- Closure Plan
 - Hydrogeologic Data (required if on-site closure is proposed)
 - Siting Criteria Compliance Demonstrations (required if on-site closure, in-place or on-site trench burial, is proposed)
 - Design Plan: Temporary Pit or On-site Trench (required if on-site closure is proposed)
- Design Plan
 - The operator may incorporate, by reference, a standard design for multiple closed-loop systems that the operator files with the application or has previously filed.

BELOW-GRADE TANK PERMIT APPLICATIONS

The application shall include:

- Operating and Maintenance Plan
- Hydrogeologic Report
 - The report should demonstrate an assessment of the subsurface conditions of the proposed site and provide conclusions and recommendations based upon supporting documentation. Information provided within the report is required to be supported by a citation of publication or attachments of supporting documentation.
- Siting Criteria Compliance Demonstrations
- Closure Plan
- Design Plan
 - The operator may incorporate, by reference, a standard design for multiple below-grade tanks that the operator files with the application or has previously filed.

ALTERNATIVE METHOD PERMIT APPLICATIONS

Submittal of an exception request is required.

Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

The application shall include, but is not limited to:

- Justifications and/or demonstrations of equivalency.
- Operating and Maintenance Plan
- Hydrogeologic Report
- Siting Criteria Compliance Demonstrations
- Closure Plan
- Design Plan

CLOSURE PLANS

Subsection C of 19.15.17.9 NMAC

- Operators of **existing unlined permanent pit that is permitted by or registered with the division, or an existing, lined or unlined, permanent pit not permitted by or registered with the division.**
 - Shall submit a closure plan to the environmental bureau in the division's Santa Fe office.
- Operators of **existing unlined, temporary pit or an existing below-grade tank that does not meet the requirements of Paragraphs (1) through (5) of Subsection I of 19.15.17.11 NMAC**
 - Shall submit a closure plan to the appropriate division district office.
- **Permits approved after June 16, 2008 (effective date)**
 - Closure plan approved as part of permit.

WASTE EXCAVATION AND REMOVAL CLOSURE PLANS

The closure plan shall include the following:

- Identify Method of Closure
- Protocols and Procedures
- Confirmation Sampling Plan (if applicable)
- Disposal Facility Name and Permit Number
- Soil Backfill and Cover Design Specifications
- Site Reclamation Plan
- Re-vegetation Plan

ON-SITE CLOSURE METHOD CLOSURE PLANS

The closure plan shall include the following:

- Identify Method of Closure
- Siting Criteria Compliance Demonstrations
- Proof of Surface Owner Notice
- Construction and Design of a Temporary Pit (if applicable)
- Construction and Design of a Burial Trench (if applicable)
- Protocols and Procedures
- Confirmation Sampling Plan (if applicable)
- Waste Material Sampling Plan
- Disposal Facility Name and Permit Number
- Soil Cover Design
- Site Reclamation Plan
- Re-vegetation Plan

ALTERNATIVE CLOSURE METHOD CLOSURE PLANS

Such a closure plan may require, but is not limited to, the following:

- Proof of Public Notice
- Proof of Surface Owner Notice
- Identify Method of Closure
- Siting Criteria Compliance Demonstrations
- Construction and Design of a Temporary Pit (if applicable)
- Construction and Design of a Burial Trench (if applicable)
- Protocols and Procedures
- Confirmation Sampling Plan (if applicable)
- Waste Material Sampling Plan
- Disposal Facility Name and Permit Number
- Soil Cover Design
- Site Reclamation Plan
- Re-vegetation Plan

FILING PERMIT APPLICATIONS

- An operator shall file an application, form C-144, and all required attachments with the appropriate OCD office.
 - Permanent Pits and Exceptions
 - Submit applications to the **Environmental Bureau Santa Fe Office** for consideration
 - Provide a copy to the appropriate division district office
 - Temporary Pits (Drilling, Workover, Emergency, Cavitation), Closed-loop Systems, and Below-grade Tanks
 - Submit applications to the **appropriate division district office** for consideration
 - If the operator plans to use a temporary pit, the operator shall provide the proposed pit location on form C-102.

SITING REQUIREMENTS

19.15.17.10 NMAC

- The siting requirements apply to the following operations:
 - Temporary pits and below-grade tanks
 - Permanent pits
 - Material excavated from pit construction
 - On-site closure methods
- An emergency pit is exempt from the siting criteria of 19.15.17 NMAC

SITING CRITERIA

- An operator shall not locate a permanent pit, temporary pit or below-grade tank:
 - where ground water is less than 50 feet below the bottom of the pit or below-grade tank;
 - Only a temporary pit used solely to cavitate a coal bed methane well is open to administrative approval. Operator must demonstrate that such use will protect ground water.
 - within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
 - Open to administrative approval. Operator must demonstrate that an alternative distance will protect surface and ground water
 - *within 300 feet* from a permanent residence, school, hospital, institution or church;
 - *Applies to temporary pits or below-grade tanks*

SITING CRITERIA

- An operator shall not locate a permanent pit, temporary pit or below-grade tank:
 - *within 1000 feet* from a permanent residence, school, hospital, institution or church;
 - *Applies to permanent pits*
 - within 500 feet of a private, domestic fresh water well or spring used by less than five households for domestic or stock watering purposes, or within 1000 feet of any other fresh water well or spring;
 - within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended, unless the municipality specifically approves;
 - within 500 feet of a wetland;

SITING CRITERIA

- An operator shall not locate a permanent pit, temporary pit or below-grade tank:
 - within the area overlying a subsurface mine;
 - Open to administrative approval. Operator must demonstrate that construction and use will not compromise the subsurface integrity
 - within an unstable area; or
 - Open to administrative approval. Operator must demonstrate that incorporated engineering measures into the design will ensure that the pit's or tank's integrity will not be compromised
 - within a 100-year floodplain.

EXCAVATED MATERIAL SITING CRITERIA

- An operator shall not locate material from the pit's construction:
 - within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole or playa lake (measured from the ordinary high-water mark);
 - Open to administrative approval. Operator must demonstrate that an alternative distance will protect surface and ground water.
 - within 500 feet of a wetland;
 - within a 100-year floodplain.

ON-SITE CLOSURE METHOD SITING CRITERIA

- An operator shall not implement an on-site closure method:
 - where ground water is **less than 50 feet** below the bottom of the buried waste; and
 - within the distances and locations identified in the siting criteria for a temporary pit or below-grade tank, except where otherwise identified in the following slides.
- For consideration of on-site closure, the operator must understand the limitations of each on-site closure method (in-place or on-site trench burial). Such as:
 - The relationship between the distance between ground water and the bottom of the buried waste and the specific waste material burial standards;

ON-SITE CLOSURE METHOD SITING CRITERIA

- An operator shall not implement the in-place burial closure method:
 - where ground water is **between 50 and 100 feet** below the bottom of the buried waste, unless;
 - where ground water is **more than 100 feet** below the bottom of the buried waste, unless;
 - The treated or stabilized waste does not exceed the in-place burial criteria of **Subparagraphs (c) or (d) of Paragraph (2) of Subsection F of 19.15.17.13 NMAC**, which ever is applicable.
 - The treated or stabilized waste shall not exceed the 3:1 mixing ratio 3:1 (soil or other material to waste)

ON-SITE CLOSURE METHOD SITING CRITERIA

- An operator shall not implement an on-site trench burial closure method:
 - where ground water is **more than 100 feet** below the bottom of the buried waste, unless;
 - The treated or stabilized waste does not exceed the on-site trench burial criteria of **Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC.**
 - The treated or stabilized waste shall not exceed the 3:1 mixing ratio 3:1 (soil or other material to waste)

DEMONSTRATIONS OF COMPLIANCE

- Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank; or
- Separation of ground water from the bottom of buried waste from the implementation of an on-site closure method.
 - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells
- Within 300 feet of a continuously flowing watercourse, or 200 feet of any other watercourse, lakebed, sinkhole or playa lake (measured from the ordinary high-water mark).
 - Topographic map; Visual inspection (certification statement) of the proposed site;

DEMONSTRATIONS OF COMPLIANCE

- *Within 300 feet* from a permanent residence, school, hospital, institution or church in existence at the time of initial application. *(Applies to temporary pits and below-grade tanks); or*
- *Within 1000 feet* from a permanent residence, school, hospital, institution or church in existence at the time of initial application. *(Applies to permanent pits)*
 - Visual inspection (certification statement) of the proposed site;
Aerial photo; Satellite image;

DEMONSTRATIONS OF COMPLIANCE

- Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.
 - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification statement) of the proposed site;
- Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.
 - Written confirmation or verification of boundary from the municipality; Written approval obtained from the municipality

DEMONSTRATIONS OF COMPLIANCE

- Within 500 feet of a wetland.
 - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification statement) of the proposed site
- Within the area overlying a subsurface mine.
 - Written confirmation or verification or map from the NM EMNRD Mining and Mineral Division
- Within an unstable area.
 - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map
- Within a 100-year floodplain.
 - FEMA map

SOURCE MATERIAL DEMONSTRATIONS OF COMPLIANCE

- NM Office of the State Engineer - iWATERS database
 - http://www.ose.state.nm.us/waters_db_index.html
 - Ground Water Data, Water well locations
- NM EMNRD Mining and Mineral Division
 - <http://www.emnrd.state.nm.us/MMD/coalminewebmap/coalminewebmap.htm>
 - Coal Mining Maps
 - <http://www.emnrd.state.nm.us/MMD/MRRS/MinesMillsQuarriesWebMap.htm>
 - Mining Maps
- State Bureau of Mines and Minerals Resources
 - <http://geoinfo.nmt.edu/index.html>
 - Ground Water Reports (Geology and Ground Water Resources by County in New Mexico)
 - Ground Water and Geological Data

SOURCE MATERIAL DEMONSTRATIONS OF COMPLIANCE

- US Fish and Wildlife
 - <http://www.fws.gov/>
 - <http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>
 - Wetland Maps and Data
- NM State Land Office
 - <http://landstatus.nmstatelands.org/>
 - <http://landstatus.nmstatelands.org/OandG.aspx>
 - Maps
- US Geological Survey (USGS)
 - <http://store.usgs.gov/mod/index.html>
 - <http://terraserver-usa.com/>
 - Topographic Maps and Aerial Photos

SOURCE MATERIAL DEMONSTRATIONS OF COMPLIANCE

- Federal Emergency Management Agency (FEMA)
 - <http://www.fema.gov/>
 - <http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1>
 - Flood Zone Maps and Data
- Google Earth
 - <http://landstatus.nmstatelands.org/>
 - <http://www.earthpoint.us/townships.aspx>
 - Topographic Maps and Aerial Photos
- NM Geological Society
 - <http://nmgs.nmt.edu/>
 - Geological Data

DESIGN AND CONSTRUCTION SPECIFICATIONS

- General Specifications
 - Proper Sizing: An operator shall design and construct a pit, closed-loop system, below-grade tank or sump to contain liquids and solids
 - Recommend increasing the size of the temporary pit if it is known that in the area of drilling is prone to kicks
- Stockpiling of Topsoil
 - Prior to constructing a pit or closed-looped system, except a pit constructed in an emergency, the operator shall strip and stockpile the topsoil for use as the final cover or fill at the time of closure
 - Must comply with the siting criteria of 19.15.17.10 NMAC, if the excavated material generated from the construction of a pit.

DESIGN AND CONSTRUCTION SPECIFICATIONS

- Signs
 - Upright sign not less than 12 inches by 24 inches with lettering not less than two inches in height in a conspicuous place on the fence surrounding the pit, closed-loop system or below-grade tank.
 - Signed in compliance with 19.15.3.103 NMAC.
 - Sign shall provide the following information:
 - the operator's name;
 - the location of the site by quarter-quarter or unit letter, section, township and range; and
 - emergency telephone numbers.

DESIGN AND CONSTRUCTION SPECIFICATIONS

- Fencing
 - Operator shall fence or enclose a pit or below-grade tank in a manner that prevents unauthorized access and shall maintain the fences in good repair.
 - Not required if there is an adequate surrounding perimeter fence that prevents unauthorized access to the well site or facility, including the pit or below-grade tank.
 - Not required to fence the edge of the pit adjacent to the drilling or workover rig during drilling or workover operations.

DESIGN AND CONSTRUCTION SPECIFICATIONS

- Fencing
 - Pit or below-grade tank located within 1000 feet of a permanent residence, school, hospital, institution or church
 - A chain link security fence, at least six feet in height with at least two strands of barbed wire at the top.
 - Must ensure that all gates associated with the fence are closed and locked when responsible personnel are not on-site.
 - Not required to fence the edge of the pit adjacent to the drilling or workover rig during drilling or workover operations.

DESIGN AND CONSTRUCTION SPECIFICATIONS

- Fencing
 - Any other pit or below-grade tank
 - Fence to exclude livestock.
 - A four foot fence that has at least four strands of barbed wire evenly spaced in the interval between one foot and four feet above ground level.
 - Division district office may approve an alternative to this requirement if the operator demonstrates that an alternative provides equivalent or better protection.
 - Division district office may impose additional fencing requirements for protection of wildlife in particular areas.

DESIGN AND CONSTRUCTION SPECIFICATIONS

- Netting
 - Required for permanent pits and permanent open top tanks.
 - Shall be screened, netted or otherwise rendered non-hazardous to wildlife, including migratory birds.
 - Where netting or screening is not physically feasible:
 - Operator must justify.
 - Monthly inspections required.
 - Within 30 days of discovery, report discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the appropriate division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.

TEMPORARY PIT DESIGN AND CONSTRUCTION

- Temporary Pits:
 - Properly sized to ensure the confinement of liquids to prevent unauthorized releases.
 - A properly constructed foundation and interior slopes consisting of a firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities to prevent the liner's rupture or tear.
 - Slopes no steeper than two horizontal feet to one vertical foot (2H:1V).
 - Open to administrative approval

TEMPORARY PIT DESIGN AND CONSTRUCTION

- Temporary Pits:
 - Geomembrane liner (demonstrated by manufacturer's spec sheet)
 - 20-mil string reinforced LLDPE or equivalent liner material.
 - Composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions.
 - Resistant to ultraviolet light.
 - Liner compatibility shall comply with EPA SW-846 method 9090A.
 - Orient seams parallel to the line of maximum slope (*i.e.*, oriented along, not across, the slope).
 - Welded seams
 - Operator shall use factory welded seams where possible

TEMPORARY PIT DESIGN AND CONSTRUCTION

- Temporary Pits:
 - Minimize the number of field seams in corners and irregularly shaped areas.
 - Construction shall avoid excessive stress-strain on the liner.
 - Geotextile is required under the liner where needed to reduce localized stress-strain or protuberances.
 - Anchor the edges of all liners in the bottom of a compacted earth-filled trench.
 - The anchor trench shall be at least 18 inches deep.
 - Liner shall be protected from any fluid force or mechanical damage at any point of discharge into or suction from the lined temporary pit.

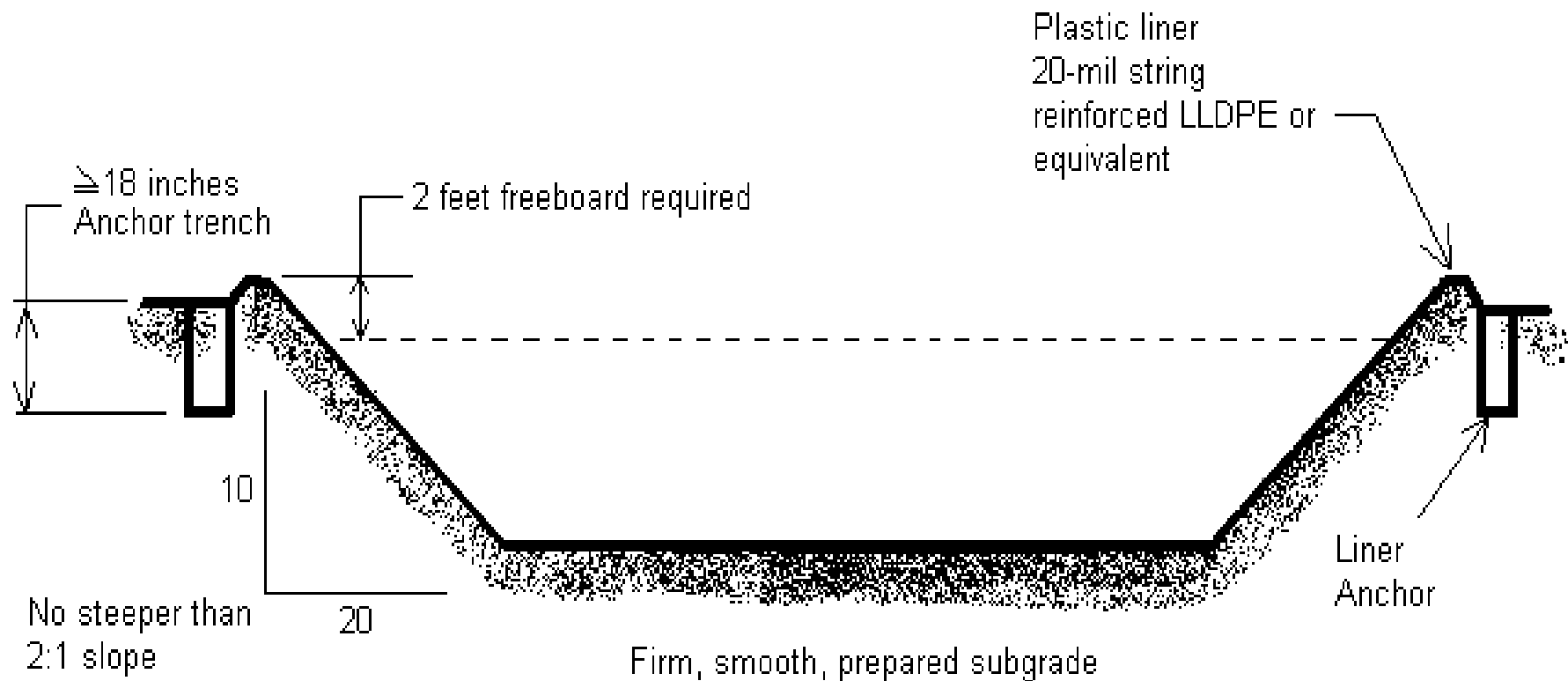
TEMPORARY PIT DESIGN AND CONSTRUCTION

- Temporary Pits:
 - Designed and constructed to prevent run-on of surface water.
 - A berm, ditch, proper sloping or other diversion shall surround a temporary pit to prevent run-on of surface water.
 - During drilling operations, the edge of the temporary pit adjacent to the drilling or workover rig is not required to have run-on protection if the operator is using the temporary pit to collect liquids escaping from the drilling or workover rig and run-on will not result in a breach of the temporary pit.
 - Volume shall not exceed 10 acre-feet, including the required two foot freeboard.

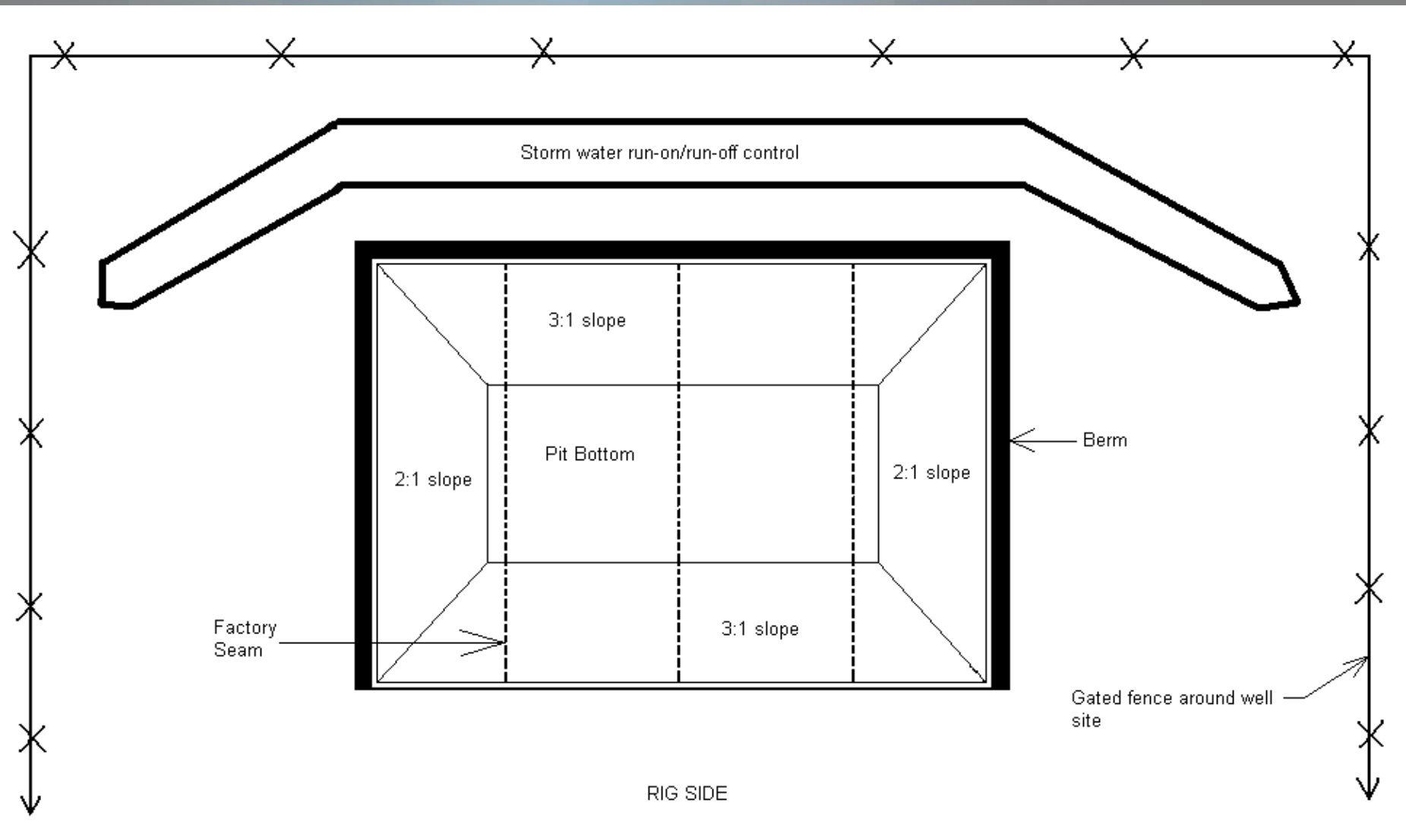
TEMPORARY PIT DESIGN AND CONSTRUCTION

- Temporary Pits:
 - The part of a temporary pit used to vent or flare gas during a drilling or workover operation that is designed to allow liquids to drain to a separate temporary pit does not require a liner
 - The division district office may require an alternative design in order to protect surface water, ground water and the environment.
 - Operator shall not allow freestanding liquids to remain on the unlined portion of a temporary pit used to vent or flare gas.

TEMPORARY PIT DESIGN AND CONSTRUCTION



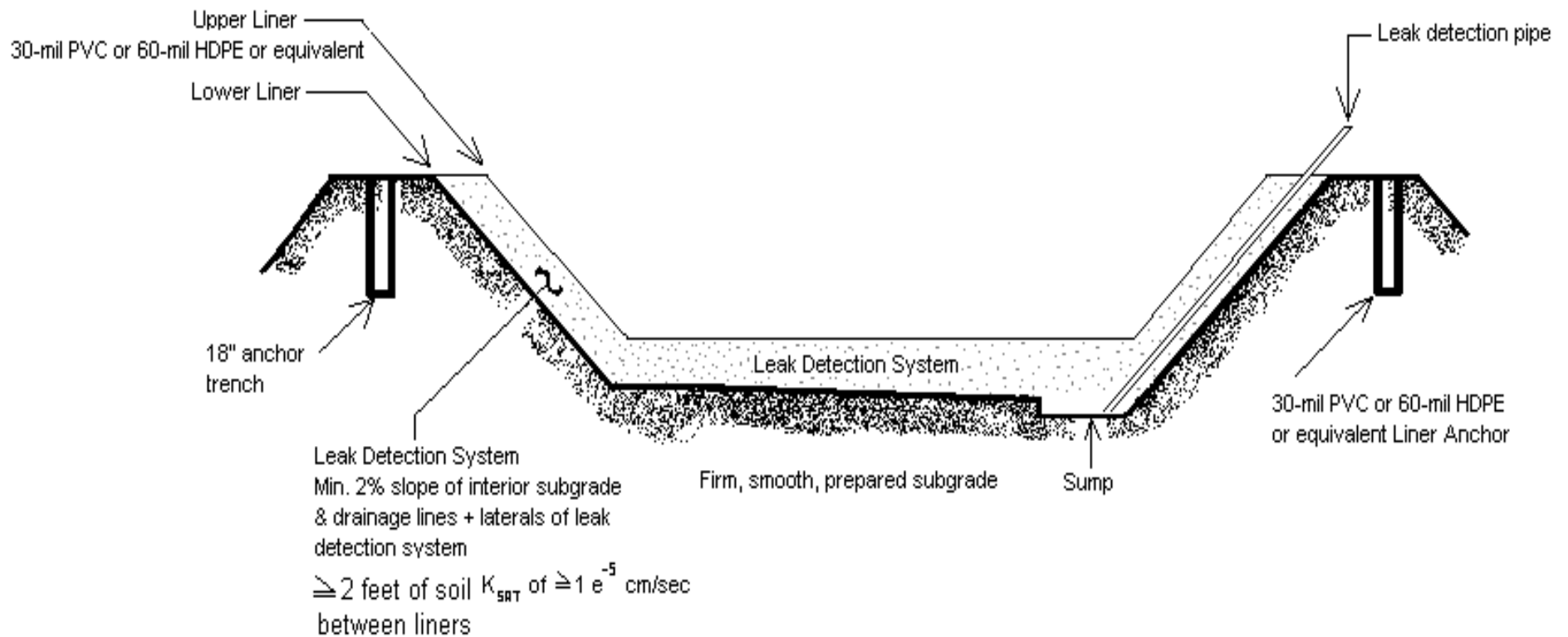
TEMPORARY PIT DESIGN AND CONSTRUCTION



PERMANENT PIT DESIGN AND CONSTRUCTION

- Permanent Pits:
 - Due to the complexity of the design requirements and the required involvement of a registered professional engineer, OCD recommends that the operator along with their consultant schedule a meeting to discuss the expectations of the information and drawings required for an application submittal.

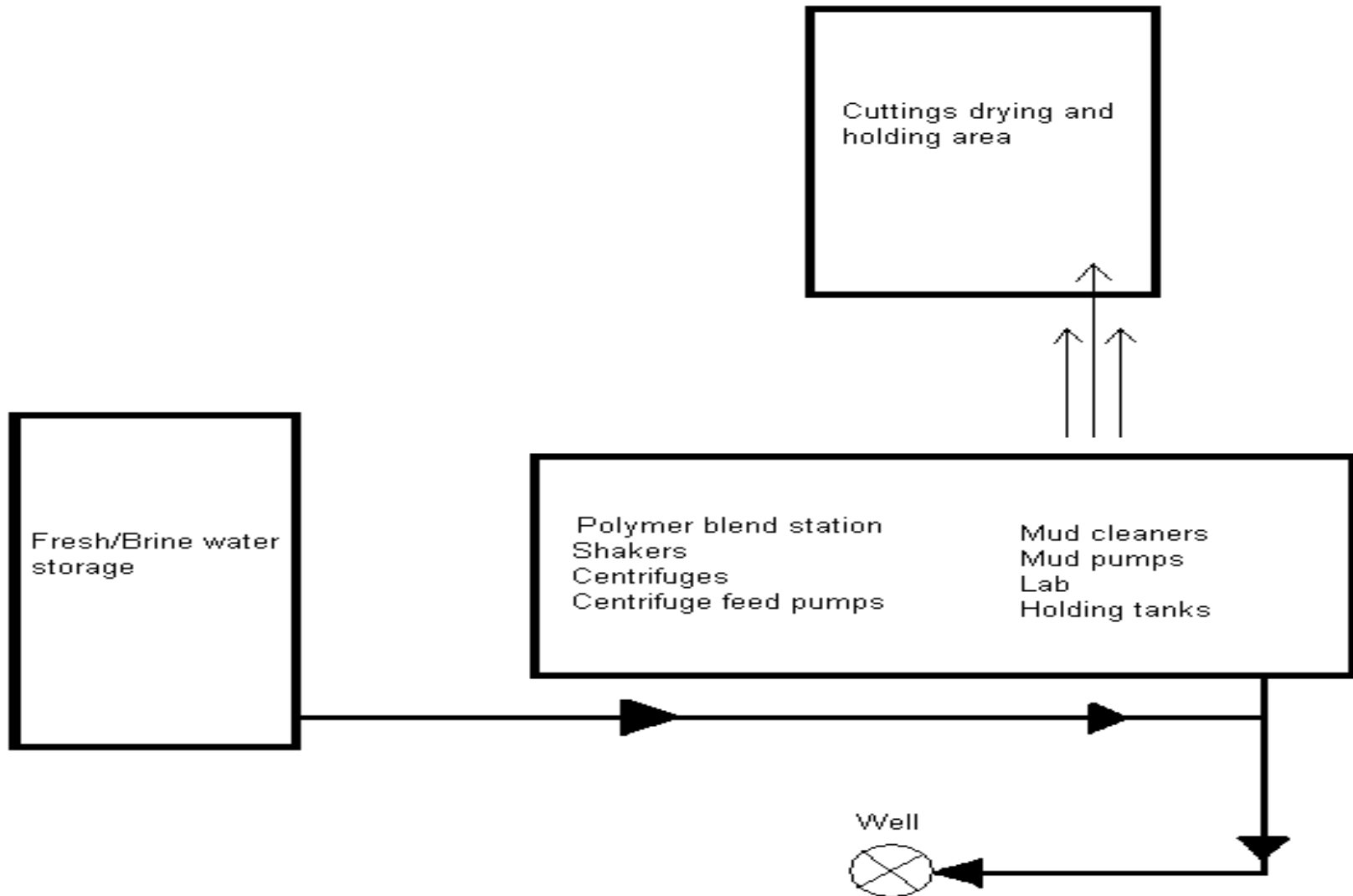
PERMANENT PIT DESIGN AND CONSTRUCTION



CLOSED-LOOP SYSTEM DESIGN AND CONSTRUCTION

- Closed-loop Systems:
 - Properly sized to ensure the confinement of oil, gas, or water to prevent uncontrolled releases.
 - Closed-loop systems that use temporary pits for solids management shall comply with the requirements for temporary pits.
 - Closed-loop system with drying pads require:
 - Appropriate liners;
 - Sumps to facilitate the collection of liquids derived from drill cuttings; and
 - Berms that prevent run-on of water or fluids

CLOSED-LOOP SYSTEM DESIGN AND CONSTRUCTION



BELOW-GRADE TANKS

DESIGN AND CONSTRUCTION

- Below-grade Tanks:
 - General Design Specifications
 - Constructed of materials resistant to the below-grade tank's particular contents and resistant to damage from sunlight.
 - A properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.
 - Constructed to prevent overflow and the collection of surface water run-on.

BELOW-GRADE TANKS

DESIGN AND CONSTRUCTION

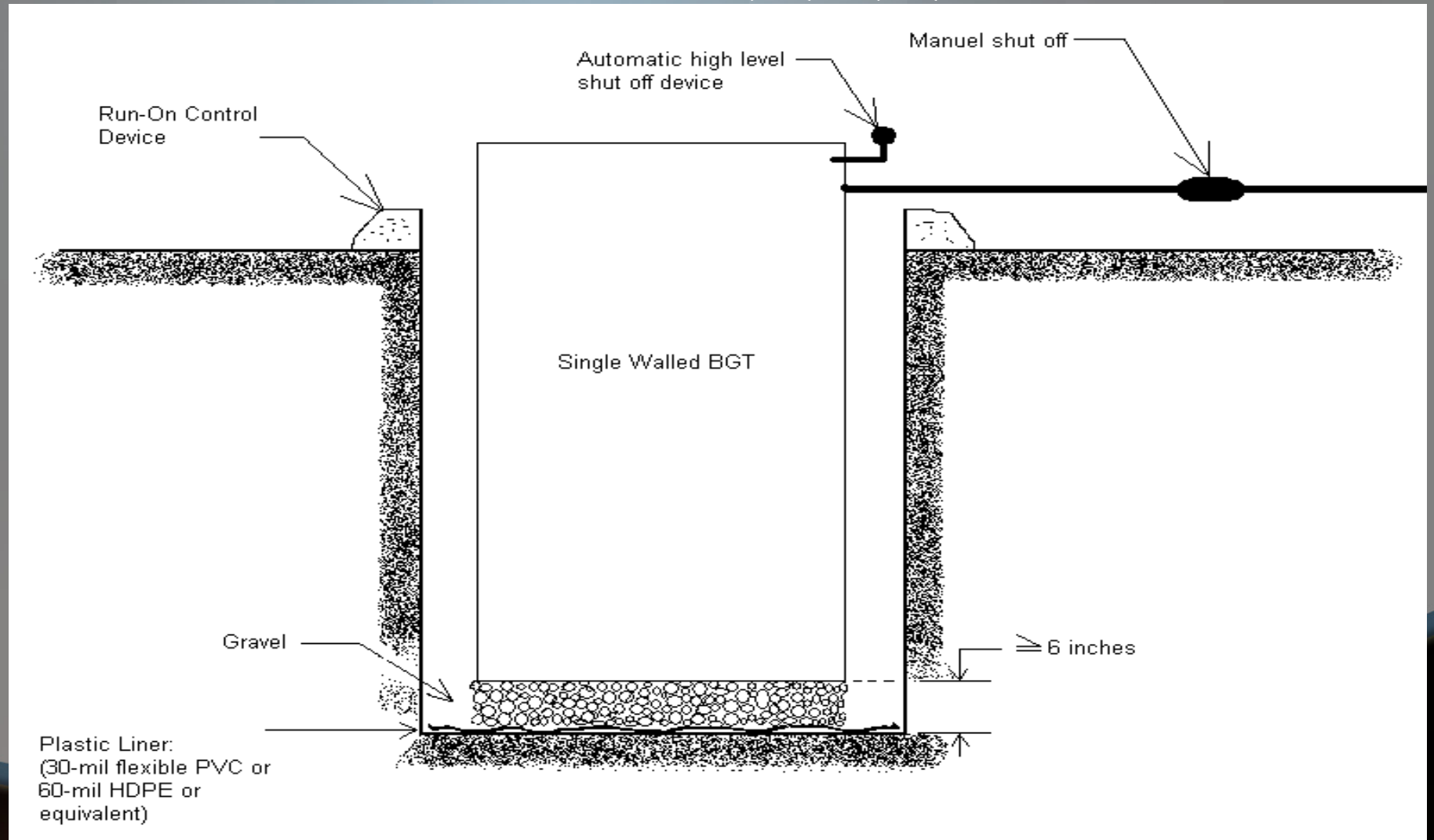
- Below-grade Tanks:
 - Approved Design (19.15.17.11.I (4) (a) NMAC)
 - Tank side walls are open for visual inspection for leaks.
 - The below-grade tank's bottom is elevated a minimum of six inches above the underlying ground surface.
 - The below-grade tank is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.
 - May be covered with gravel.
 - Equipped with a properly operating automatic high-level shut-off control device and manual controls to prevent overflows.

BELOW-GRADE TANKS

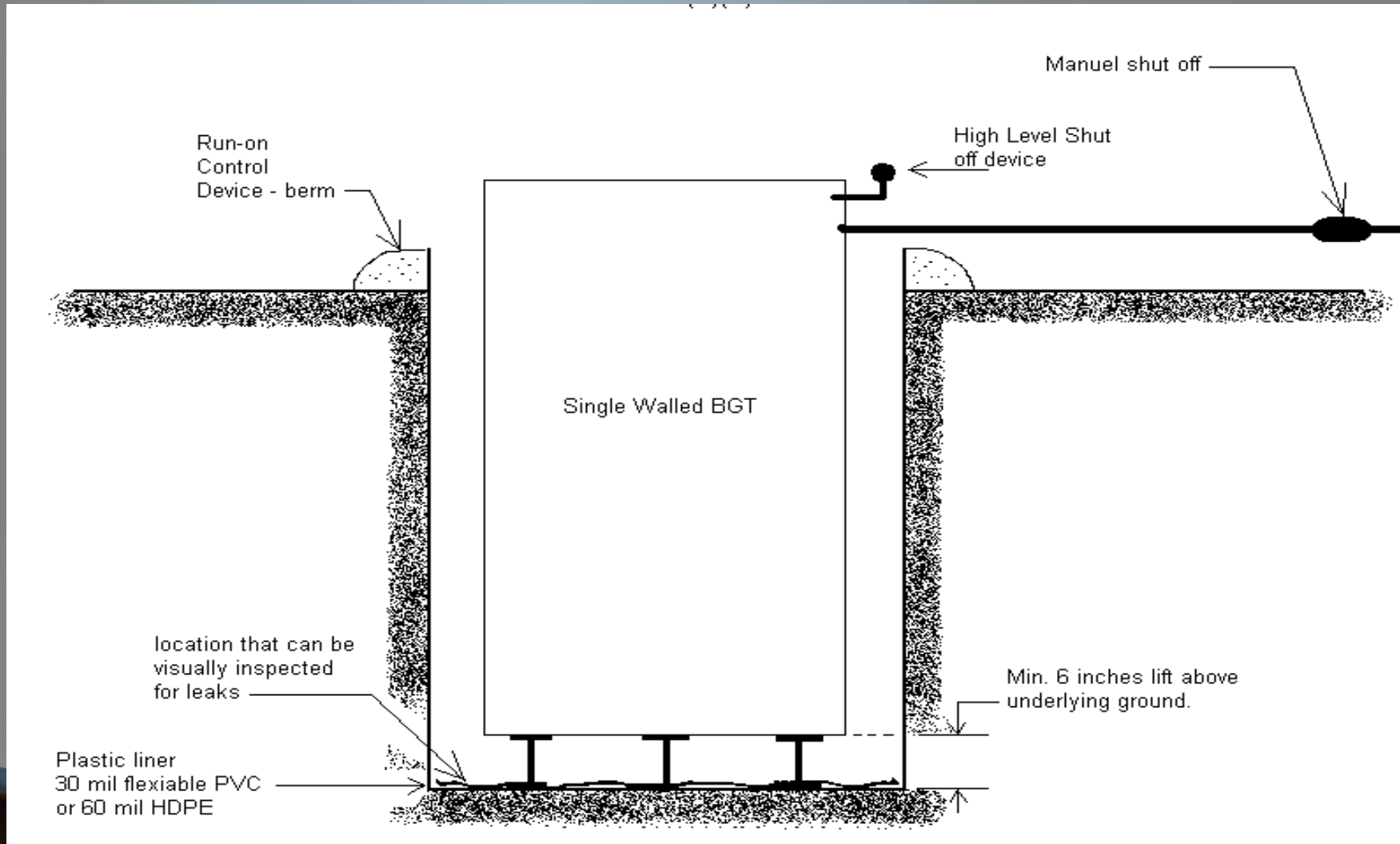
DESIGN AND CONSTRUCTION

- Below-grade Tanks:
 - Approved Design (19.15.17.11.I (4) (a) NMAC)
 - Geomembrane liner shall consist of 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner material.
 - Hydraulic conductivity no greater than 1×10^{-9} cm/sec.
 - Composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions.
 - Resistant to ultraviolet light.
 - Liner compatibility shall comply with EPA SW-846 method 9090A.

BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.1 (4) (a) NMAC



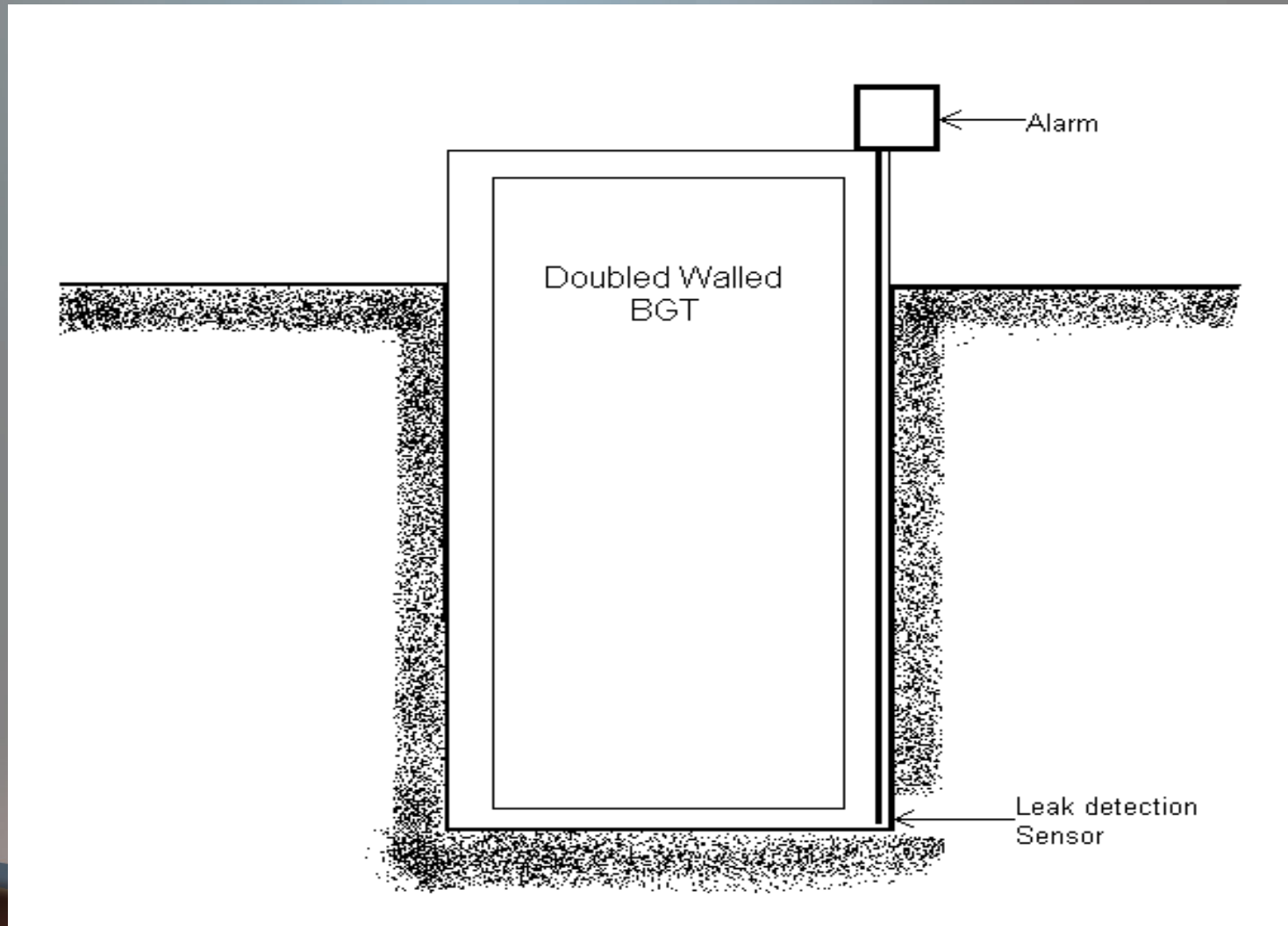
BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.I (4) (a) NMAC



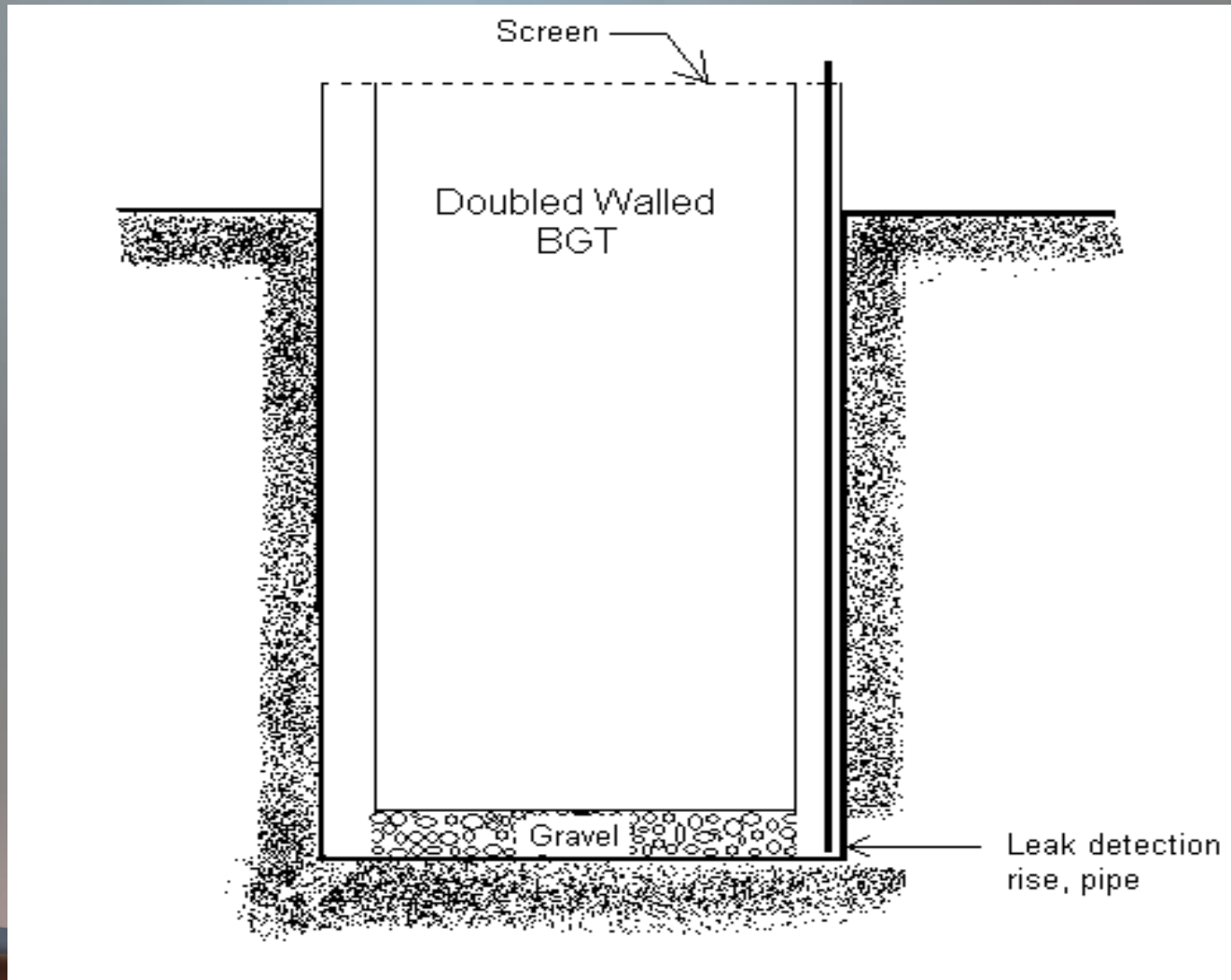
BELOW-GRADE TANKS DESIGN AND CONSTRUCTION

- Below-grade Tanks:
 - Approved Design (19.15.17.11.I (4) (b) NMAC)
 - Tank side walls are not open for visible inspection for leaks.
 - Double walled with leak detection capability.
 - 19.15.17.11.I (4) (c) NMAC: An operator may construct a below-grade tank according to an alternative system that the appropriate district office approves based upon the operator's demonstration that the alternative provides equivalent or better protection.

BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.1 (4) (b) NMAC



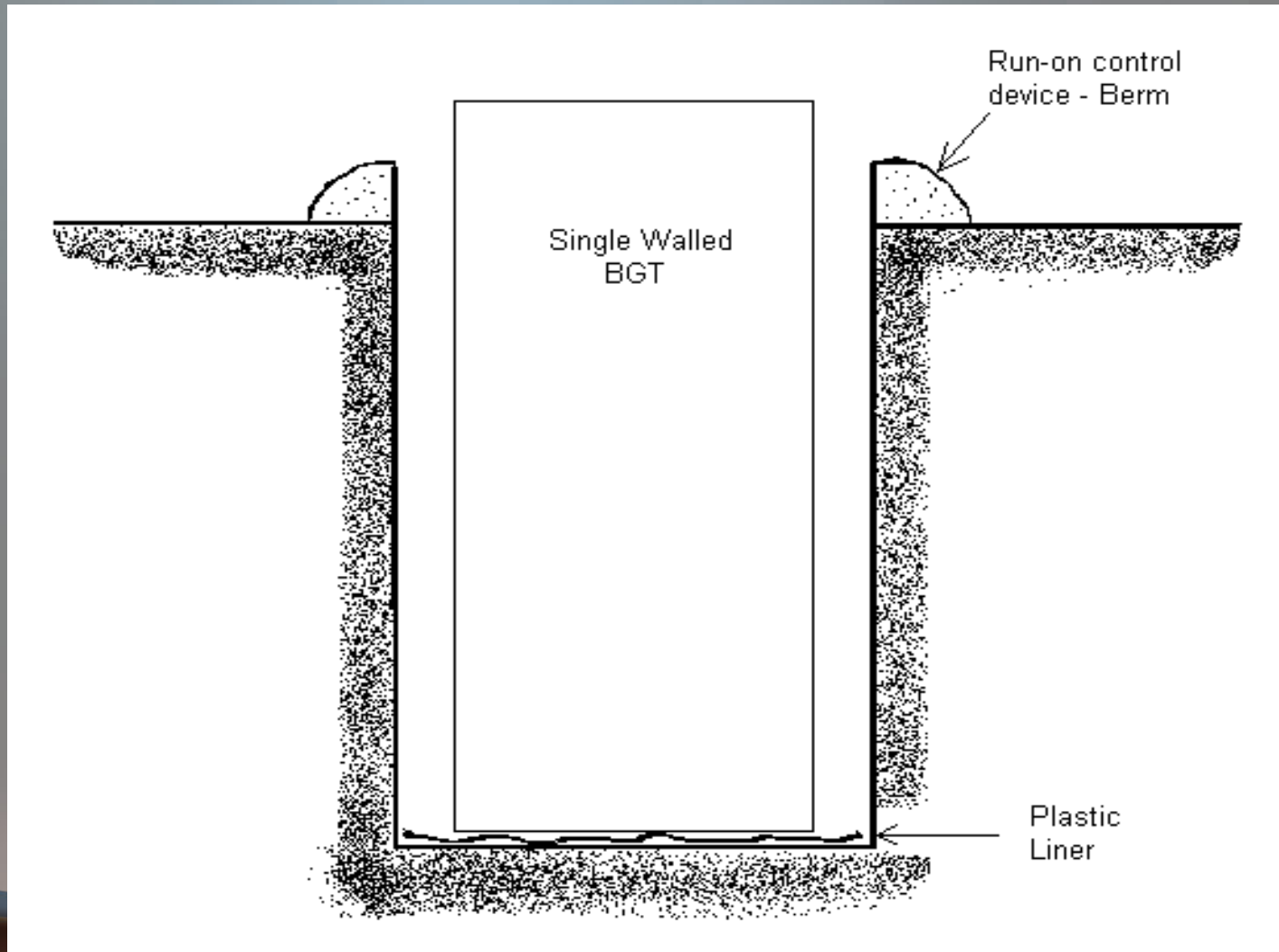
BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.1 (4) (b) NMAC



BELOW-GRADE TANKS DESIGN AND CONSTRUCTION

- Below-grade Tanks (19.15.17.11.I (5) NMAC):
 - Below-grade tanks constructed and installed prior to June 16, 2008 that has the side walls open for visual inspection and is placed upon a geomembrane liner
 - Does not meet all the requirements in Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
 - Not required to equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC so long as it demonstrates integrity.
 - If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.
 - May require a permit, if not previously permitted prior to the effective date.

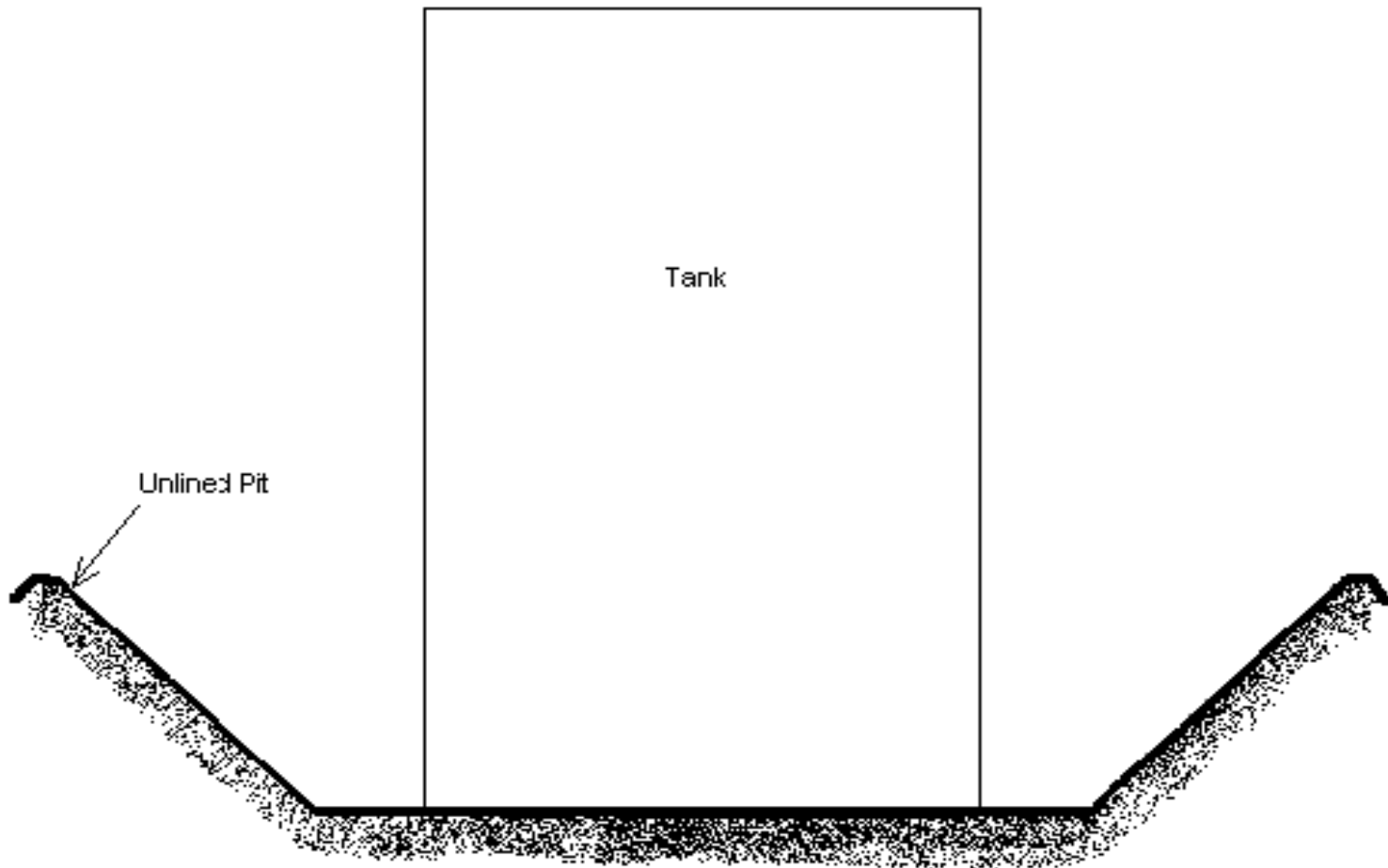
BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.1 (5) NMAC



BELOW-GRADE TANKS DESIGN AND CONSTRUCTION

- Below-grade Tanks (19.15.17.11.I (6) NMAC):
 - Below-grade tanks constructed and installed prior to June 16, 2008 that does not comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or that does not comply with Paragraph (5) of Subsection I of 19.15.17.11 NMAC.
 - Shall equip or retrofit the below-grade tank to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within five years after June 16, 2008.
 - If the existing below-grade tank does not demonstrate integrity, the operator shall promptly remove that below-grade tank and install a below-grade tank that complies with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or close it.
 - May require a permit, if not previously permitted prior to the effective date.

BELOW-GRADE TANK DESIGN AND CONSTRUCTION 19.15.17.11.I (6) NMAC



ON-SITE TRENCH DESIGN AND CONSTRUCTION

- On-site Trench for Closure:
 - Temporary pits and closed-loop systems.
 - Must satisfy the siting criteria specified in Subsection C of 19.15.17.10 NMAC and Subparagraph (d) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC.
 - Excavation must be to an appropriate depth that allows for the installation of the geomembrane bottom liner, geomembrane liner cover and the division-prescribed soil cover.
 - Shall have a properly constructed foundation and side walls.
 - Geotextile is required under the liner where needed to reduce localized stress-strain or protuberances.

ON-SITE TRENCH DESIGN AND CONSTRUCTION

- On-site Trench for Closure:
 - Constructed with a geomembrane liner.
 - Consist of a 20-mil string-reinforced LLDPE liner or equivalent liner.
 - Composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions.
 - Resistant to ultraviolet light.
 - Liner compatibility shall comply with EPA SW-846 method 9090A.
 - Install sufficient liner material to reduce stress-strain on the liner.

ON-SITE TRENCH DESIGN AND CONSTRUCTION

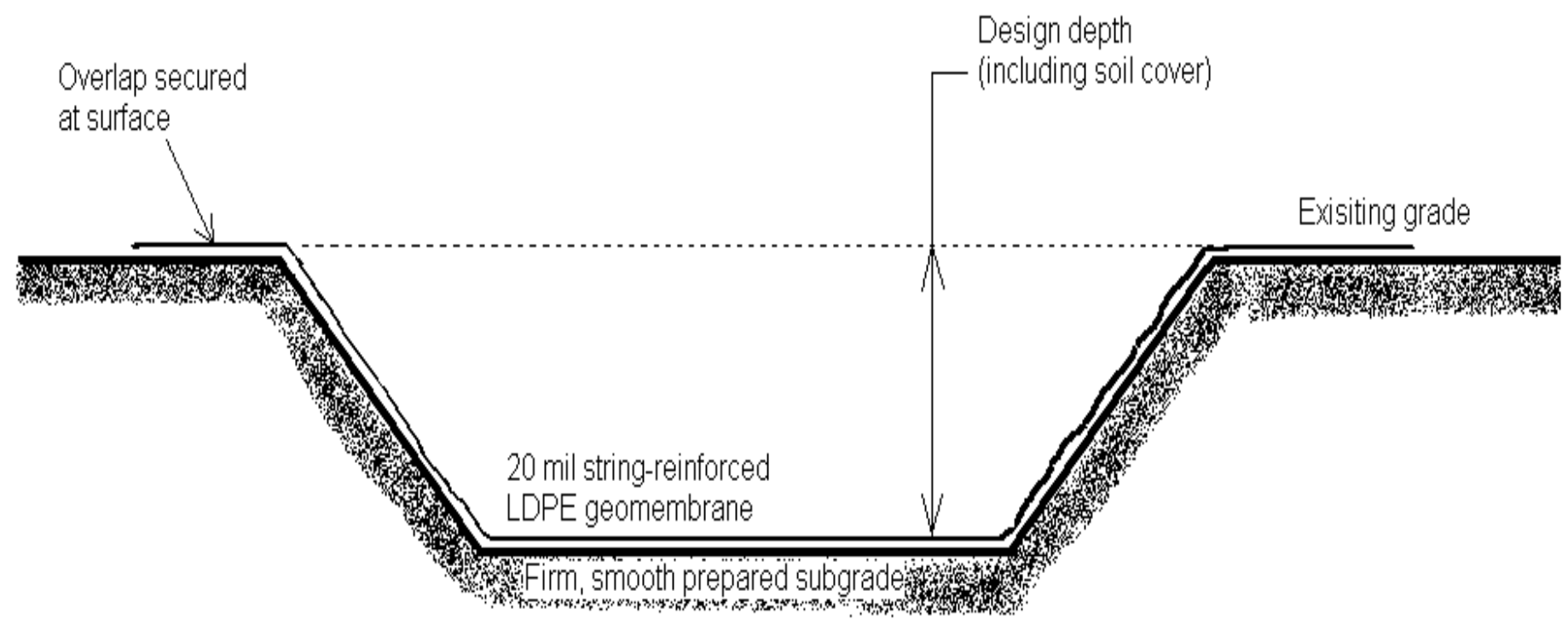
- On-site Trench for Closure:
 - Four to six inches of liner overlap required prior to field seaming.
 - Orient seams parallel to the line of maximum slope (*i.e.*, oriented along, not across, the slope).
 - Welded seams
 - Operator shall use factory welded seams where possible.
 - Field seams shall be welded.
 - Qualified personnel shall perform field seaming.
 - Minimize the number of field seams in corners and irregularly shaped areas.
 - Ensure that the outer edges of all liners are secured for the placement of the excavated waste material into the trench.

ON-SITE TRENCH DESIGN AND CONSTRUCTION

- On-site Trench for Closure:
 - Fold the outer edges of the trench liner to overlap the waste material in the trench prior to the installation of the geomembrane cover.
 - Install a geomembrane cover over the waste material in the lined trench.
 - Install in a manner that prevents the collection of infiltration water in the lined trench and on the geomembrane cover after the soil cover is in place.
 - Consist of a 20-mil string reinforced LLDPE liner or equivalent cover.
 - Composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions.
 - Cover compatibility shall comply with EPA SW-846 method 9090A.

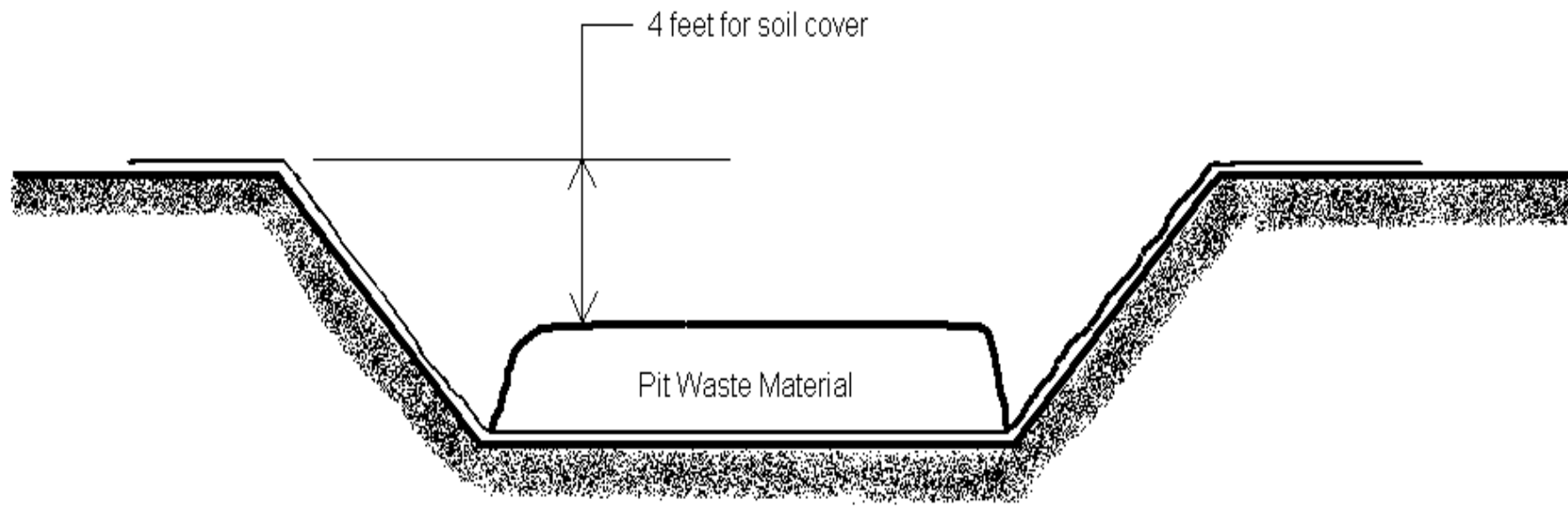
ON-SITE TRENCH DESIGN AND CONSTRUCTION 19.15.17.11.J NMAC

Step 1. Trench Construction



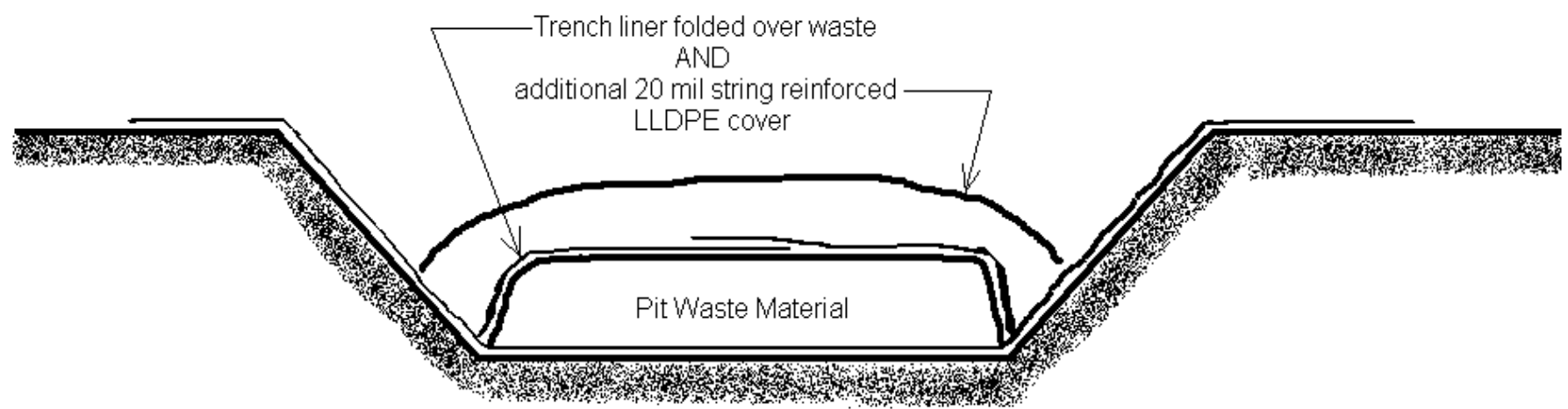
ON-SITE TRENCH DESIGN AND CONSTRUCTION 19.15.17.11.J NMAC

Step 2. Filling with Pit Wastes



ON-SITE TRENCH DESIGN AND CONSTRUCTION 19.15.17.11.J NMAC

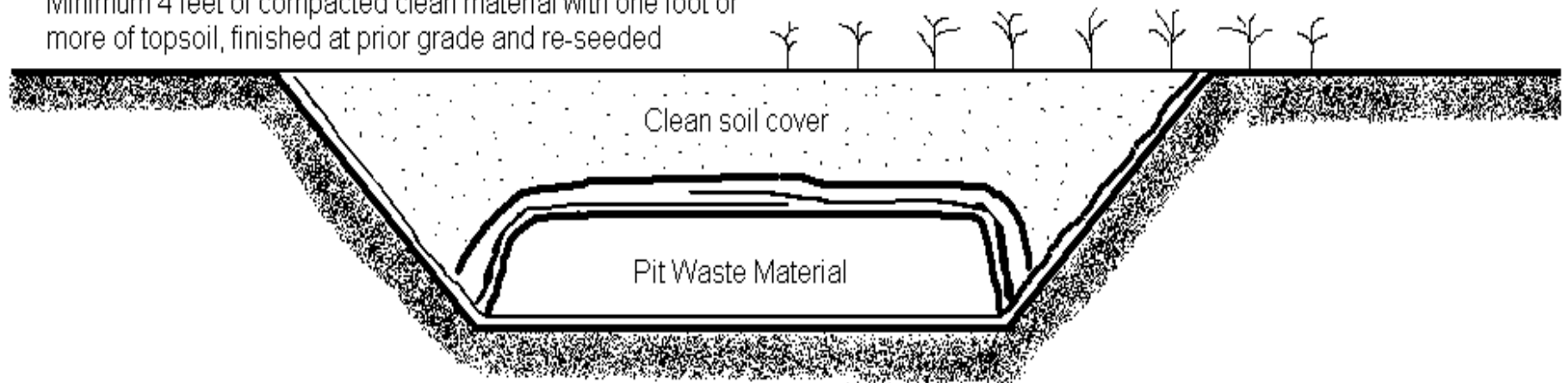
Step 3. Final liner configuration



ON-SITE TRENCH DESIGN AND CONSTRUCTION 19.15.17.11.J NMAC

Step 4. Cover fill

Minimum 4 feet of compacted clean material with one foot or more of topsoil, finished at prior grade and re-seeded



OPERATIONAL REQUIREMENTS

- General Specifications:
 - Operator shall operate and maintain a pit, closed-loop system, below-grade tank or sump to contain liquids and solids and maintain the integrity of the liner, liner system or secondary containment system.
 - Operator shall recycle, reuse or reclaim or dispose of all drilling fluids in a manner approved by division rules.
 - Operator shall not discharge into or store any hazardous waste in a pit, closed-loop system, below-grade tank or sump.

OPERATIONAL REQUIREMENTS

- General Specifications:
 - If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface:
 - The operator shall notify the appropriate division district office within 48 hours of the discovery
 - The operator shall repair the damage or replace the liner.
 - Includes during the implementation of in-place closure.

OPERATIONAL REQUIREMENTS

- General Specifications:
 - If a pit, below-grade tank, closed-loop system or sump develops a leak, or if any penetration of the pit liner, below-grade tank, closed-loop system or sump occurs below the liquid's surface:
 - The operator shall remove all liquid above the damage or leak line within 48 hours.
 - The operator shall notify the appropriate division district office within 48 hours of the discovery.
 - The operator shall repair the damage or replace the pit liner, below-grade tank, closed-loop system or sump.
 - Applies during the implementation of in-place closure.

OPERATIONAL REQUIREMENTS

- General Specifications:
 - Injection or withdrawal of liquids from a pit shall be accomplished through a header, diverter or other hardware
 - Shall prevent damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.
 - Operator shall operate and install a pit, below-grade tank or sump to prevent the collection of surface water run-on.
 - Operator shall install, or maintain on site, an oil absorbent boom or other device to contain and remove oil from a pit's surface.
 - The absorbent boom shall on-site until the pit is closed.

TEMPORARY PITS

OPERATIONAL REQUIREMENTS

- Temporary Pits:
 - Only fluids used or generated during the drilling or workover process may be discharged into a temporary pit.
 - Operator shall maintain a temporary pit free of miscellaneous solid waste or debris.
 - Operator shall use a tank made of steel or other material, which the appropriate division district office approves, to contain hydrocarbon-based drilling fluids.
 - Operator shall remove any visible or measurable layer of oil from the surface of a drilling or workover pit, immediately after cessation of a drilling or workover operation.

TEMPORARY PITS

OPERATIONAL REQUIREMENTS

- Temporary Pits:
 - Operator shall maintain at least **two feet of freeboard**.
 - Operator shall inspect a temporary pit containing drilling fluids at least **daily** while the drilling or workover rig is on-site.
 - Thereafter, the operator shall inspect the temporary pit **weekly** so long as liquids remain in the temporary pit.
 - Operator shall maintain a log of such inspections and make the log available for the appropriate division district office's review upon request.
 - Operator shall file a copy of the log with the appropriate division district office when the operator closes the temporary pit.

TEMPORARY PITS

OPERATIONAL REQUIREMENTS

- Temporary Pits:
 - Operator shall **remove all free liquids** from a temporary pit **within 30 days** from the date that the operator releases the drilling or workover rig.
 - Operator **shall note the date** of the drilling or workover rig's release **on form C-105 or C-103** upon well or workover completion.
 - The appropriate division district office may grant an extension of up to three months.
 - Operator shall **remove any liquids** from the temporary pit used for cavitation **within 48 hours after completing cavitation.**
 - Operator may request and receive additional time to remove the liquids from the temporary pit used for cavitation if the operator demonstrates to the appropriate division district office's satisfaction that it is not feasible to access the location with 48 hours.

PERMANENT PITS

OPERATIONAL REQUIREMENTS

- Permanent Pits:
 - Operator shall maintain at least three feet of freeboard for a permanent pit.
 - Operator shall permanently mark such level on the permanent pit.
 - No oil or floating hydrocarbon shall be present in a permanent pit

BELOW-GRADE TANKS

OPERATIONAL REQUIREMENTS

- Below-grade Tanks:
 - Operator shall not allow a below-grade tank to overflow or allow surface water run-on to enter the below-grade tank.
 - Operator shall remove any visible or measurable layer of oil from the fluid surface of a below-grade tank.
 - Operator shall inspect the below-grade tank at least monthly and maintain a written record of each inspection for five years.
 - Operator shall maintain adequate freeboard to prevent overtopping of the below-grade tank.

SUMPS

OPERATIONAL REQUIREMENTS

- Sumps:
 - Operator shall visually inspect a sump's integrity annually and promptly repair or replace a sump that fails the inspection.
 - Operator shall maintain records of sump inspection and make the records available for the appropriate division district office's review upon request.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - **Existing unlined permanent pits** that are permitted by or registered with the division
 - Operator shall submit a closure plan to the Environmental Bureau Santa Fe office **within six months** after June 16, 2008.
 - Operator shall cease discharging into the unlined permanent pit **within two years** after June 16, 2008.
 - Operator shall close **within three years** after June 16, 2008.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - Existing, lined or unlined, permanent pits that are not permitted by or registered with the division
 - Operator shall submit a closure plan to the Environmental Bureau Santa Fe office **within 30 days** after June 16, 2008.
 - Operator shall cease discharging into the unlined permanent pit **on or by June 16, 2008**.
 - Operator shall close **within six months** after June 16, 2008.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - **Existing unlined temporary pit**
 - Operator shall submit a closure plan to the appropriate district office **within 30 days** after June 16, 2008.
 - Operator shall close **within three months** after June 16, 2008.
 - **Existing below-grade tanks that does not meet the design and construction requirements of Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC or are not included in Paragraph (5) of Subsection I of 19.15.17.11 NMAC**
 - Operator shall submit a closure plan to the appropriate district office **within six months** after June 16, 2008.
 - Operator shall close **within five years** after June 16, 2008.
 - If not retrofitted to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - **Any other permitted permanent pit**
 - Operator shall close within 60 days of cessation of operation of the permanent pit in accordance with an approved closure plan.
 - Operator shall obtain an approved closure plan, that complies with 19.15.17 NMAC, prior to implementing closure.
 - **Any other permitted temporary pit**
 - Operator shall close within six months from the date that the operator releases the drilling or workover rig.
 - The appropriate division district office may grant an extension not to exceed three months.
 - Operator shall obtain an approved closure plan, that complies with 19.15.17 NMAC, prior to implementing closure.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - **Drying pads used for a closed-loop system** permitted under 19.15.17 NMAC or in operation on June 16, 2008.
 - Operator shall close **within six months** from the date that the operator releases the drilling or workover rig.
 - The appropriate division district office may grant an extension not to exceed three months.
 - Operator shall note the date of the drilling or workover rig's release **on form C-105 or C-103**, filed with the division, upon the well's or workover's completion.
 - Operator shall obtain an approved closure plan, that complies with 19.15.17 NMAC, prior to implementing closure.

TIMELINES

CLOSURE REQUIREMENTS

- Time requirements for closure:
 - **Permitted below-grade tanks**
 - Operator shall close **within 60 days** of cessation of the below-grade tank's operation or as required by the transitional provisions of Subsection B of 19.15.17.17 NMAC in accordance with an approved closure plan.
 - Operator shall obtain an approved closure plan, that complies with 19.15.17 NMAC, prior to implementing closure.

CLOSURE

Three Types of Closure Methods:

- **Waste Excavation and Removal**
 - Temporary Pits, Closed-loop Systems, Permanent Pits, and Below-grade Tanks
- **On-site Closure Methods**
 - Temporary Pits and Closed-loop Systems
 - Two types
 - **In-Place Burial**
 - **On-Site Trench Burial**
 - Requires waste excavation and removal procedures and protocols (in case on-site closure standards cannot be achieved)
- **Alternative Closure Method**
 - Temporary Pits and Closed-loop Systems
 - Exception request required

CLOSURE REQUIREMENTS

- General closure provisions:
 - Operator shall remove all liquids, BS&W, and/or sludge, as applicable, prior to closure.
 - Operator shall dispose of the liquids, BS&W, and sludge in a division-approved facility or recycle, reuse or reclaim the liquids in a manner that the division approves.
 - Operator shall remove the on-site equipment associated with a permanent pit or below-grade tank, unless the equipment is required for some other purpose.
 - Operator of a closed-loop system that uses a temporary pit, in lieu of a drying pad, shall comply with the closure requirements for temporary pits.

WASTE EXCAVATION AND REMOVAL

- General provisions:
 - Operator shall close by excavating all solid and/or semi-solid waste material, liners, and/or below-grade tank and transferring those materials to a division-approved facility.
 - Below-grade tanks may be recycled, reused, or reclaimed in a manner that the appropriate division district office approves.
 - Confirmation Sampling:
 - Operator **shall test the soils beneath the temporary pit, permanent pit, or below-grade tank to determine whether a release has occurred.**
 - Confirmation sampling is not delineation of a release.

WASTE EXCAVATION AND REMOVAL

- Confirmation Sampling:
 - Operator shall collect, at a minimum, a five point, composite sample.
 - Operator shall collect individual grab samples from any area that is wet, discolored or showing other evidence of a release.
 - Operator shall analyze for benzene, total BTEX, TPH, the GRO and DRO combined fraction and chlorides beneath a temporary pit.
 - Operator shall analyze for benzene, total BTEX, TPH, and chlorides beneath a permanent pit or below-grade tank.

TEMPORARY PITS

CONFIRMATION SAMPLING

- Where ground water is between 50 and 100 feet below the bottom of the temporary pit:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 500 mg/kg or the background concentration, whichever is greater.

TEMPORARY PITS

CONFIRMATION SAMPLING

- Where ground water is more than 100 feet below the bottom of the temporary pit:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 1000 mg/kg or the background concentration, whichever is greater.

PERMANENT PITS CONFIRMATION SAMPLING

- Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 100 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 250 mg/kg or the background concentration, whichever is greater.

BELOW-GRADE TANKS CONFIRMATION SAMPLING

- Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 100 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 250 mg/kg or the background concentration, whichever is greater.

RELEASE CONFIRMATION SAMPLING STANDARDS FROM BENEATH PIT OR BELOW-GRADE TANK

	19.15.17.13B - Closure methods for temporary pits.		19.15.17.13C - Closure method for permanent pits	19.15.17.13D - Closure methods for closed-loop systems.		19.15.17.13E - Closure method for below-grade tanks.
	Temporary Pits & Cavitation Pits	Temporary Pits	Permanent Pits	Temporary pit See 19.15.17.13B - same as temporary pit.	Drying pad Onsite closure standards see 19.17.15.13F	Below-grade Tank
	Ground water between 50-100' beneath the pit.	Ground water >100' beneath the pit.				
The operator shall collect, at a minimum, a five point, composite sample and collect individual grab samples from any area that is wet, discolored or showing other evidence of a release.						
Benzene 8021B or 8260B	0.2 mg/kg	0.2 mg/kg	0.2 mg/kg		Not Required	0.2 mg/kg
Total BTEX 8021B or 8260B	50 mg/kg	50 mg/kg	50 mg/kg		Not Required	50 mg/kg
GRO + DRO 8015M	500 mg/kg	500 mg/kg	NS		Not Required	NS
TPH 418.1	2500 mg/kg	2500 mg/kg	100 mg/kg		Not Required	100 mg/kg
Chlorides 300.1	500 mg/kg	1000 mg/kg	250 mg/kg		Not Required	250 mg/kg
RELEASE CONFIRMED	Comply with Rule 116 or 19	Comply with Rule 116 or 19	Comply with Rule 116 or 19			Comply with Rule 116 or 19

WASTE EXCAVATION AND REMOVAL

- If the operator or the division determines that a release has occurred:
 - Operator shall notify the division of its results on form C-141.
 - The division may require additional delineation upon review of the results.
 - The operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC.

WASTE EXCAVATION AND REMOVAL

- If the sampling program demonstrates that a release has not occurred or that any release does not exceed the applicable concentrations:
 - Operator shall backfill the excavation or impacted area with non-waste containing, earthen material.
 - Operator shall construct a division-prescribed soil cover, substantially restore, recontour and re-vegetate the site.
 - The division-prescribed soil cover, substantially restore, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

CLOSURE METHODS

- **On-site burial:**
 - Temporary pits or drying pads associated with a closed-loop system
 - Operator shall demonstrate and comply with the siting requirements in Subsection C of 19.15.17.10 NMAC and the closure requirements and standards of Subsection F of 19.15.17.13 NMAC.
 - May require the permitting of a temporary pit for in-place burial a drying pads associated with a closed-loop system.
- **Alternative closure methods:**
 - Temporary pits or drying pads associated with a closed-loop system
 - Does not include an exception to a specific provision in Paragraphs (1) or (2) of Subsection B or D of 19.15.17.13 NMAC.
 - Must be pursued under the provisions of Subsection B of 19.15.17.15 NMAC.

ON-SITE CLOSURE METHOD CLOSURE REQUIREMENTS

- On-site closure methods:
 - Closure requirements and standards of this provision apply to:
 - A drying pad associated with a closed-loop system or a temporary pit that involves on-site burial, or
 - An alternative closure method.
 - Two Types:
 - In-place burial
 - On-site trench burial

ON-SITE CLOSURE METHOD CLOSURE REQUIREMENTS

- General requirements:
 - Any proposed on-site closure method shall comply with the siting criteria specified in Subsection C of 19.15.17.10 NMAC.
 - Operator shall provide the surface owner notice of the operator's proposal of an on-site closure method.
 - Proof of notice is required with the permit application submittal.
 - **BLM's approval stamp is sufficient for proof of notice.**
 - Operator shall comply with the closure requirements and standards of Paragraphs (2) and (3), as applicable, of Subsection F of 19.15.17.13 NMAC.

ON-SITE CLOSURE METHOD

CLOSURE REQUIREMENTS

- General requirements:
 - Operator **shall place a steel marker** at the center of an on-site burial.
 - Steel marker shall be not less than four inches in diameter and shall be cemented in a three-foot deep hole at a minimum.
 - Steel marker shall extend at least four feet above mean ground level and at least three feet below ground level.
 - **Operator name, lease name and well number and location**, including unit letter, section, township and range, and that the marker designates an on-site burial location shall be welded, stamped or otherwise permanently engraved into the metal of the steel marker.
 - A person **shall not remove** an on-site burial marker without the division's written permission.

ON-SITE CLOSURE METHOD

CLOSURE REQUIREMENTS

- General requirements:
 - A person **shall not build permanent structures** over an on-site burial without the appropriate division district office's written approval. See OCD attachment.**
 - Operator **shall report the exact location** of the on-site burial on form C-105 filed with the division.
 - Operator **shall file a deed notice** identifying the exact location of the on-site burial with the county clerk in the county where the on-site burial occurs.

ON-SITE CLOSURE METHOD

CLOSURE REQUIREMENTS

- General requirements:
 - Is an option, if the operator meets the applicable siting criteria specified in Subsection C of 19.15.17.10 NMAC and the applicable waste criteria specified Subsection F of 19.15.17.13 NMAC.
 - Prior to closing, the operator **shall stabilize or solidify the contents** to a bearing capacity sufficient to support the temporary pit's final cover.
 - Operator shall not exceed the 3:1 mixing ratio (soil or other material to contents)

ON-SITE CLOSURE METHOD

CLOSURE REQUIREMENTS

- General requirements:
 - Waste Sampling:
 - Operator shall collect at a minimum, a five point, composite sample of the contents of the drying pad or temporary pit after treatment or stabilization, if treatment or stabilization is required; or
 - Operator may collect the composite sample prior to treatment or stabilization to demonstrate that the contents do not exceed the burial standards.
 - If the contents collected prior to treatment or stabilization exceed the specified concentrations the operator shall collect a second five point, composite sample of the contents after treatment or stabilization.

IN-PLACE BURIAL CLOSURE REQUIREMENTS

- **In-place Burial Standards** - where the ground water will be between 50 and 100 feet below the bottom of the buried waste:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 500 mg/kg or the background concentration, whichever is greater.

IN-PLACE BURIAL CLOSURE REQUIREMENTS

- **In-place Burial Standards** - where the ground water will be more than 100 feet below the bottom of the buried waste:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 1000 mg/kg or the background concentration, whichever is greater.

IN-PLACE BURIAL CLOSURE REQUIREMENTS

- For burial of the contents from a drying pad associated with a closed-loop system:
 - Operator shall construct a temporary pit, in accordance with Paragraphs (1) through (6) and (10) of Subsection F of 19.15.17.11 NMAC.
 - Operator shall locate the temporary pit within 100 feet of the drying pad associated with a closed-loop system.
 - Division district office may approve an alternative distance and location.
 - Operator shall use a separate temporary pit for closure of each drying pad associated with a closed-loop system.

IN-PLACE BURIAL CLOSURE REQUIREMENTS

- Upon closure of a temporary pit or closure of a temporary pit that the operator constructs for burial of the contents of a drying pad:
 - Operator shall cover the geomembrane lined, filled, temporary pit with compacted, non-waste containing, earthen material.
 - Operator shall construct a division-prescribed soil cover, recontour and re-vegetate the site.
 - The division-prescribed soil cover, recontouring, and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- **On-site Trench Burial Standards:**
 - Operator shall demonstrate that
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - Chlorides, as determined by *EPA method 1312*, do not exceed 250 mg/l; and
 - As determined by *EPA method 1312*, the concentrations of the water contaminants specified in Subsection A of 20.6.2.3103 NMAC as determined by appropriate EPA methods **do not exceed the standards specified in Subsection A of 20.6.2.3103 NMAC**, unless otherwise specified above.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- For on-site trench burial of the contents from a drying pad associated with a closed-loop system or temporary pit:
 - Operator shall design and construct the lined trench in accordance with the design and construction requirements specified in Paragraphs (1) through (8) of Subsection J of 19.15.17.11 NMAC.
 - Operator shall locate the lined trench within 100 feet of the drying pad associated with a closed-loop system or temporary pit.
 - Division district office may approve an alternative distance and location.
 - Operator shall use a separate on-trench for closure of each drying pad associated with a closed-loop system or temporary pit.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- Operator shall close each drying pad associated with a closed-loop system or temporary pit by excavating and transferring all contents and synthetic pit liners or liner material associated with a closed-loop system or temporary pit to a lined trench
- The excavated materials shall:
 - Pass the paint filter liquids test (EPA SW-846, method 9095) and
 - Pass the closure standards specified in Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC.
- Confirmation Sampling:
 - Operator shall test the soils beneath the temporary pit after excavation to determine whether a release has occurred.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- **Confirmation sampling:** where the ground water is between 50 and 100 feet below the bottom of the temporary pit:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 500 mg/kg or the background concentration, whichever is greater.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- **Confirmation sampling:** where the ground water is more than 100 feet below the bottom of the temporary pit:
 - Operator shall demonstrate that
 - Benzene, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 0.2 mg/kg;
 - Total BTEX, as determined by *EPA SW-846 method 8021B or 8260B* or other EPA method that the division approves, does not exceed 50 mg/kg;
 - TPH, as determined by *EPA SW-846 method 418.1* or other EPA method that the division approves, does not exceed 2500 mg/kg;
 - GRO and DRO combined fraction, as determined by *EPA SW-846 method 8015M*, does not exceed 500 mg/kg; and
 - Chlorides, as determined by *EPA method 300.1*, do not exceed 1000 mg/kg or the background concentration, whichever is greater.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- If the operator or the division determines that a release has occurred:
 - Operator shall notify the division of its results on form C-141.
 - The division may require additional delineation upon review of the results.
 - The operator shall comply with 19.15.3.116 NMAC and 19.15.1.19 NMAC.
 - Operator may propose to transfer the excavated, contaminated soil into the lined trench.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (c) of Paragraph (3) of Subsection F of 19.15.17.13 NMAC
 - Operator shall backfill the excavation with compacted, non-waste containing, earthen material.
 - Operator shall construct a division-prescribed soil cover, recontour and re-vegetate the site.
 - The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

ON-SITE TRENCH BURIAL CLOSURE REQUIREMENTS

- Operator shall install a geomembrane cover over the excavated material in the lined trench.
- Operator shall design and construct the geomembrane cover in accordance with the requirements specified in Paragraphs (9) and (10) of Subsection J of 19.15.17.11 NMAC.
- Operator shall cover the geomembrane lined and covered, filled, trench with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation shall comply with Subsections G, H and I of 19.15.17.13 NMAC.

ON-SITE BURIAL CLOSURE STANDARDS FOR WASTE MATERIAL

	In-place burial for drying pads and temporary pits - 19.15.17.13F(2)		On-site trench burial for drying pads and temporary pits - 19.15.17.13F(3)
	Ground water between 50-100' from bottom of buried waste	Ground water >100' from bottom of buried waste	Ground water >100' BGS from bottom of buried waste
Benzene 8021B or 8260B	0.2 mg/kg	0.2 mg/kg	Contaminant specified in Subsection A of 20.6.2.3103 NMAC
Total BTEX 8021B or 8260B	50 mg/kg	50 mg/kg	Contaminant specified in Subsection A of 20.6.2.3103 NMAC
GRO + DRO 8015M	500 mg/kg	500 mg/kg	Not Required
TPH 418.1	2500 mg/kg	2500 mg/kg	2500 mg/kg
Chlorides 300.1	500 mg/kg	1000 mg/kg	250 mg/l after SPLP Method 1312
			20.6.2.3103A NMAC Standards - 33 constituents after SPLP Method 1312
			May be taken either before or after stabilization
			Paint filter test EPA SW-846 Method 9095

**20.6.2.3103 NMAC - WQCC STANDARDS FOR GROUND WATER OF 10,000 MG/L TDS CONCENTRATION OR LESS:
A. HUMAN HEALTH STANDARDS-**

Non-aqueous phase liquid shall not be present floating atop of or immersed within ground water, as can be reasonably measured.

(1) Arsenic (As)	0.1 mg/l	(18) 1,2-dichloroethane (EDC)	0.01 mg/l
(2) Barium (Ba)	1.0 mg/l	(19) 1,1-dichloroethylene (1,1-DCE)	0.005 mg/l
(3) Cadmium (Cd)	0.01 mg/l	(20) 1,1,2,2-tetrachloroethylene (PCE)	0.02 mg/l
(4) Chromium (Cr)	0.05 mg/l	(21) 1,1,2-trichloroethylene (TCE)	0.1 mg/l
(5) Cyanide (CN)	0.2 mg/l	(22) ethylbenzene	0.75 mg/l
(6) Fluoride (F)	1.6 mg/l	(23) total xylenes	0.62 mg/l
(7) Lead (Pb)	0.05 mg/l	(24) methylene chloride	0.1 mg/l
(8) Total Mercury (Hg)	0.002 mg/l	(25) chloroform	0.1 mg/l
(9) Nitrate (NO ₃ as N)	10.0 mg/l	(26) 1,1-dichloroethane	0.025 mg/l
(10) Selenium (Se)	0.05 mg/l	(27) ethylene dibromide (EDB)	0.0001 mg/l
(11) Silver (Ag)	0.05 mg/l	(28) 1,1,1-trichloroethane	0.06 mg/l
(12) Uranium (U)	0.03 mg/l	(29) 1,1,2-trichloroethane	0.01 mg/l
(13) Radioactivity: Combined Radium-226 & Radium-228	30 pCi/l	(30) 1,1,2,2-tetrachloroethane	0.01 mg/l
(14) Benzene	0.01 mg/l	(31) vinyl chloride	0.001 mg/l
(15) Polychlorinated biphenyls (PCB's)	0.001 mg/l	(32) PAHs: total naphthalene plus monomethylnaphthalenes	0.03 mg/l
(16) Toluene	0.75 mg/l	(33) benzo-a-pyrene	0.0007 mg/l
(17) Carbon Tetrachloride	0.01 mg/l		

RECLAMATION CLOSURE REQUIREMENTS

- Operator shall reclaim the pit location, drying pad location, below-grade tank location or trench location and all areas associated with the closed-loop system, pit, trench or below-grade tank *including associated access roads* to a safe and stable condition that blends with the surrounding undisturbed area.
- Operator shall substantially restore the impacted surface area to the condition that existed prior to oil and gas operations by:
 - **Placement of the soil cover** as provided in Subsection H of 19.15.17.13 NMAC;
 - **Recontour the location and associated areas** to a contour that approximates the original contour and blends with the surrounding topography; and
 - **Re-vegetate** according to Subsection I of 19.15.17.13 NMAC.

RECLAMATION CLOSURE REQUIREMENTS

- Operator may propose an alternative to the re-vegetation requirement if the:
 - Operator **demonstrates** that the proposed alternative effectively prevents erosion, and protects fresh water, human health and the environment.
 - Proposed alternative shall be **agreed upon by the surface owner.**
 - Operator submits the **proposed alternative**, with **written documentation that the surface owner agrees to the alternative**, to the division for approval.

SOIL COVER DESIGNS

CLOSURE REQUIREMENTS

- Closures where the operator has removed the pit contents or remediated the contaminated soil to the division's satisfaction.
 - Soil cover shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.
- Closures where the operator has implemented in-place or on-site trench burial.
 - Soil cover shall consist of a minimum of four feet of compacted, non-waste containing, earthen material.
 - Soil cover shall include either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.
- Operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

RE-VEGETATION CLOSURE REQUIREMENTS

- Operator shall seed or plant the disturbed areas the first growing season after the operator:
 - closes a pit or trench or
 - is no longer using a drying pad, below-grade tank or an area associated with a closed-loop system, pit or below-grade tank, including access roads.
- Operator shall accomplish seeding:
 - by drilling on the contour whenever practical or
 - by other division-approved methods

RE-VEGETATION CLOSURE REQUIREMENTS

- Operator shall obtain vegetative cover that equals 70% of the native perennial vegetative cover (unimpacted by overgrazing, fire or other intrusion damaging to native vegetation)
 - consisting of at least three native plant species
 - including at least one grass, but not including noxious weeds
- Operator shall maintain that cover through two successive growing seasons.
 - During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

RE-VEGETATION CLOSURE REQUIREMENTS

- Operator shall repeat seeding or planting until it successfully achieves the required vegetative cover.
- When conditions are not favorable for the establishment of vegetation, such as periods of drought, the division may:
 - allow the operator to delay seeding or planting until soil moisture conditions become favorable or
 - may require the operator to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices
- Operator shall notify the division when it has seeded or planted and when it successfully achieves re-vegetation.

CLOSURE NOTICE REQUIREMENTS

- Operator **notify the surface owner** by certified mail, return receipt requested, **that the operator plans to close a temporary pit, a permanent pit, a below-grade tank or where the operator has approval for on-site closure.**
 - Demonstration of Compliance:
 - Evidence of mailing of the notice to the address of the surface owner shown in the county tax records.
- Operator of a temporary pit or below-grade tank **or an operator who is approved for on-site closure shall notify the appropriate division district office verbally or by other means at least 72 hours, but not more than one week, prior to any closure operation.**
 - **Notice shall include the operator's name and the location to be closed** by unit letter, section, township and range.
 - **If associated with a particular well, the notice shall also include the well's name, number and API number.**

CLOSURE NOTICE REQUIREMENTS

- Operator of a **permanent pit** shall notify the **environmental bureau** in the division's Santa Fe office at least **60 days** prior to cessation of operations and **provide a proposed schedule for closure**.
 - If there is no closure plan on file, the operator shall **provide a closure plan with notice**.
- Upon receipt of the notice and proposed schedule, the environmental bureau in the division's Santa Fe office shall review the current closure plan for adequacy and inspect the site.

CLOSURE REPORT REQUIREMENTS

- Operator shall submit a closure report on form C-144, with necessary attachments to document all closure activities within 60 days of closure completion.
- Operator shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the approved closure plan.
- If the operator used a temporary pit, the operator shall provide a plat of the pit location on form C-105 within 60 days of closing the temporary pit.

EMERGENCY ACTION

19.15.17.14 NMAC

- No permit is required for true emergencies.
 - In an emergency an operator may construct a pit without a permit to contain fluids, solids or wastes, if an immediate danger to fresh water, public health or the environment exist.
 - Operator shall construct a pit during an emergency, to the extent possible given the emergency, in a manner that is consistent with the requirements for a temporary pit specified in 19.15.17 NMAC and that prevents the contamination of fresh water and protect public health and the environment.

EMERGENCY ACTION

19.15.17.14 NMAC

- Notice:
 - Operator shall **notify** the appropriate division district office **as soon as possible** (if possible before construction begins) of the need for such pit's construction.
- Use and duration:
 - Used **only for** the emergency's duration.
 - If the emergency lasts more than 48 hours, the division district office's **approval is required for continued use**.
 - Operator shall remove all fluids, solids or wastes within 48 hours after cessation of use
 - unless the appropriate division district office extends that time period.

EMERGENCY ACTION

19.15.17.14 NMAC

- **Emergency pits**

- The section does not authorize construction or use of an emergency pit as defined in Subsection D of 19.15.17.7 NMAC.
 - “Emergency pit” means a pit that is **constructed as a precautionary matter** to contain a spill in the event of a release.
- Construction or use of any such pit **requires a permit** issued pursuant to 19.15.17 NMAC.
 - unless the pit is described in a spill prevention, control and countermeasure plan the EPA requires, the operator removes all fluids from the pit within 48 hours and the operator has filed a notice of the pit’s location with the appropriate division district office.

EXCEPTIONS

19.15.17.15 NMAC

- The following provisions are not open to a request for an exception:
 - Permits Required (19.15.17.8 NMAC)
 - Exceptions (19.15.17.15 NMAC)
 - Permit Approvals, Conditions, Denials, Revocations, Suspensions, Modifications or Transfers (19.15.17.16 NMAC)
- Only the environmental bureau in the division's Santa Fe office may grant an exception, unless a hearing is granted.
 - Operator shall demonstrate that the granting of the exception provides equivalent or better protection of fresh water, public health and the environment.

EXCEPTIONS

19.15.17.15 NMAC

- The environmental bureau may revoke an exception if it is determined that such action is necessary to prevent the contamination of fresh water, or to protect public health or the environment.
- Operators requesting an exception are required to provide a comprehensive public notice.
 - Operator shall give written notice by certified mail, return receipt requested.
 - Operator shall issue public notice by publication.
 - One time in a newspaper of general circulation in the county where the proposed exception or alternative is or will be located.
 - Written and public notices require the environmental bureau in the division's Santa Fe office's approval.
- The division shall distribute notice of the application to persons who have requested notification and shall post notice of the application on the division's website.

EXCEPTIONS

19.15.17.15 NMAC

- Written notice by certified mail, return receipt requested, to the:
 - Surface owner of record where the exception or alternative is proposed;
 - Surface owners of record within one-half mile of the proposed exception or alternative;
 - County commission of the county where the exception or alternative is proposed;
 - Appropriate city officials if the proposed exception or alternative is, or will be, located within city limits, within one-half mile of the city limits or within the city's zoning and planning jurisdiction;
 - Affected federal or tribal or pueblo governmental agencies; and
 - Such other persons as the environmental bureau in the division's Santa Fe office may direct.

ALTERNATIVE CLOSURE METHOD EXCEPTIONS

- Operators shall apply to the environmental bureau in the division's Santa Fe office for an exception to the closure methods specified in Paragraphs (1) and (2) of Subsection B of 19.15.17.13 NMAC or Paragraphs (1) and (2) of Subsection D of 19.15.17.13 NMAC.
 - Available for closure of a temporary pit or a closed-loop system.
 - Does not apply to an exception request of a specific provision within Paragraphs (1) or (2) of Subsection B of 19.15.17.13 NMAC or Paragraphs (1) and (2) of Subsection D of 19.15.17.13 NMAC.

ALTERNATIVE CLOSURE METHOD EXCEPTIONS

- Operator must demonstrate that the proposed alternative method protects fresh water, public health and the environment.
- Operator shall remove liquids prior to implementing a closure method.
- Operator shall dispose of the liquids in a division-approved facility or recycle or reuse the liquids in a manner that the environmental bureau in the division's Santa Fe office approves.
- The provisions of Subsection A of 19.15.17.15 NMAC shall apply to applications for exceptions pursuant to Subsection B of 19.15.17.15 NMAC

ALTERNATIVE CLOSURE METHOD EXCEPTIONS

- Operator shall demonstrate to the satisfaction of the environmental bureau in the division's Santa Fe office that any proposed alternative closure method will implement one or more of the following practices:
 - waste minimization;
 - treatment using best demonstrated available technology;
 - reclamation; reuse; recycling; or
 - reduction in available contaminant concentration.
- Consideration of approval is subject to such conditions as the environmental bureau in the division's Santa Fe office deems necessary in order to protect fresh water, public health and the environment.

PERMIT APPROVALS, CONDITIONS, DENIALS, REVOCATIONS, SUSPENSIONS, MODIFICATIONS OR TRANSFERS 19.15.17.16 NMAC

- The division shall review all applications to permit facilities and **may approve, deny or approve an application with conditions.**
 - If the division denies an application or approves the application subject to conditions not expressly provided by the Oil and Gas Act or in 19.15 NMAC:
 - The division shall notify the applicant and shall set the matter for hearing if the applicant so requests.
- Operators may apply to the division for a modification of the permit
 - Any modification that is equivalent to an exception of any paragraph of 19.15.17 NMAC **shall be subject to the notice and approval procedures required for an exception.**
- The division may revoke, suspend, or modify a permit for good cause.

PERMIT APPROVALS, CONDITIONS, DENIALS, REVOCATIONS, SUSPENSIONS, MODIFICATIONS OR TRANSFERS

- Permits may be transferred.
 - Operator **shall not transfer** a permit **without the division's prior written approval.**
 - Division approval of an application to transfer a well or other facility with which a permitted pit, below-grade tank or closed-loop system is associated **shall constitute approval of the transfer of the permit for the pit, below-grade tank or closed-loop system.**
 - Operators and transferees shall apply for approval to transfer the permit to the division office to which permit applications for the type of facility involved are directed.
- The division shall grant or confirm any division approval authorized by a provision of 19.15.17 NMAC by written statement.
 - Written statements include e-mail.

TRANSITIONAL PROVISIONS

19.15.17.17 NMAC

- The division will no longer accept applications for permits for unlined temporary pits, unless the operator requests an exception for this provision.
- Operators of existing, lined or unlined, permanent pits that are not permitted by or registered with OCD or existing unlined temporary pit
 - Shall submit a closure plan to the division no later than 30 days of June 16, 2008
- Operators of existing unlined permanent pits that are permitted by or registered with OCD or existing, lined or unlined, permanent pit that is not permitted or registered
 - Shall submit a closure plan to the division no later than six months after June 16, 2008

TRANSITIONAL PROVISIONS

19.15.17.17 NMAC

- Operators existing pits or below-grade tanks permitted prior to June 16, 2008
 - May continue to operate in accordance with such permits or orders, subject to the following provisions:
 - Operators of existing lined, permitted or registered, permanent pits shall comply with the operational and closure requirements.
 - Operators of existing, permitted or registered, temporary pits shall comply with the operational and closure requirements.
 - Operators of existing below-grade tanks shall comply with the operational and closure requirements.
 - Operators shall bring an existing below-grade tanks that do not comply with the design and construction requirements into compliance or close it within five years after June 16, 2008.

TRANSITIONAL PROVISIONS

19.15.17.17 NMAC

- Operators of existing below-grade tanks
 - Shall apply for a permit or permit modification pursuant to 19.15.17 NMAC within 90 days after June 16, 2008.
 - Permit: Not permitted prior to the effective date
 - Modification: To comply with the design and construction requirements.
- Operators may continue to operate an existing closed-loop systems without applying for a permit.
 - but the operator shall close such system in accordance with the closure requirements of 19.15.17.13 NMAC.
- Operators of existing sump shall comply with the operational requirements of 19.15.17.12 NMAC.

CLOSURE AND TRANSITIONAL PROVISIONS FOR EXISTING OPERATIONS

Existing on June 16, 2008	Permit application submittal or modification request	Closure plan submittal timeline	Closure activity initiation dates and closure completion timelines	Closure report after completion
13.A (1) Permanent pit permitted (unlined)	N/A	Submit Closure Plan within 6 months of June 16, 2008	Stop using within 2 yrs of June 16, 2008 Close within 3 yrs of June 16, 2008	60 Days
13.A (2) Permanent pit non permitted (lined or unlined)	N/A	Within 30 Days of June 16, 2008	Stop using by June 16, 2008 Close within 6 Months of June 16, 2008	60 Days
13.A (3) Temporary pit (unlined)	N/A	Within 30 Days of June 16, 2008	Close within 3 Months June 16, 2008	60 Days
13.A (4) BGT-Not approved design nor retrofitted to comply with I.11 (1-4) Not permitted	Within 90 days of June 16, 2008 (17.D)	Within 6 months of June 16, 2008 (for closure of existing tank)	Close within 5 years of June 16, 2008	60 Days
BGT-Approved design I.11(5) Not permitted	Within 90 days of June 16, 2008 (17.D)	Within 6 months of June 16, 2008 (for closure of existing tank)	If lost integrity, replace with approved design	60 Days

CLOSURE AND TRANSITIONAL PROVISIONS FOR EXISTING OPERATIONS

Existing on June 16, 2008	Permit application submittal or modification request	Closure plan submittal timeline	Closure activity initiation dates and closure completion timelines	Closure report after completion
13.A (4) BGT-Not approved design nor retrofitted to comply with I.11 (1-4) Permitted	N/A	Within 6 months of June 16, 2008	Close within 5 years of June 16, 2008	60 Days
BGT-Approved design I.11(5) Permitted	N/A	Not specified *	If lost integrity, replace with approved design or 60 days after cessation**	60 Days
17.C Permanent pit- does not comply with the design and construction of 19.15.17.11 NMAC (permitted and lined)	Modification to permit within 180 days of June 16, 2008 Comply within 18 months of modification approval	Submit closure plan with modification request	60 days after cessation (13.A.5)	60 Days
17.C Permanent pit- does not comply with the design and construction of 19.15.17.11 NMAC (registered and lined)	Within 180 days of June 16, 2008 Comply within 18 months of permit issuance.	Submit closure plan with permit application	60 days after cessation (13.A.5)	60 Days

*If not specified OCD recommends a closure plan to be submitted ASAP with a C-144 or well in advance of closure date.

**Must have an approved closure plan prior to impletion of closure.

CLOSURE AND TRANSITIONAL PROVISIONS FOR EXISTING OPERATIONS

Existing on June 16, 2008	Permit application submittal or modification request	Closure plan submittal timeline	Closure activity initiation dates and closure completion timelines	Closure report after completion
17.E (I) Permanent pit – permitted lined	N/A	60 days prior cessation (13.J.3)	60 days after cessation (13.A.5)	60 Days
17.E (2) Temporary pit - permitted	N/A	Not specified *	6 months after rig release date <u>or</u> June 16, 2008, whichever is later** (3 months possible extension)	60 Days
17.E (3) BGT – Permitted – design per I.11.(1-5)	N/A	Not specified *	60 days after cessation**	60 Days
17.E (4) BGT – Permitted – not designed per I.11(1-5)	Modification to permit within 5 years of June 16, 2008	Submit with permit modification within 5 years of June 16, 2008 or prior to initiating closure, whichever is sooner	If retrofitted by approved modification, 60 days after cessation. Close within 5 years of June 16, 2008 if not retrofitted**	60 Days
13.A (7) Closed loop system	N/A	Not specified *	6 months after rig release date <u>or</u> June 16, 2008, whichever is later (6 months possible extension)	60 Days
12.E Sump	N/A	N/A	If lost integrity – Repair or replace	60 Days

*If not specified OCD recommends a closure plan to be submitted ASAP with a C-144 or well in advance of closure date.

**Must have an approved closure plan prior to impletion of closure.

CLOSURE REQUIREMENTS FOR NEW OPERATIONS

<u>Not Existing</u> on June 16, 2008	Permit required	Closure plan submittal timelines	Closure completion timelines	Closure report after completion
13.A (5) Permanent pit (must be lined)	Yes*	Submit Closure Plan with application to construct and operate	Close within 60 days of cessation	60 Days
13.A (6) Temporary pit	Yes*	Submit Closure Plan with application to construct and operate	Close within 6 months of rig release date (3 months possible extension)	60 Days
13.A (7) Closed loop system**	Yes*	Submit Closure Plan with application to construct and operate	Close drying pad within 6 months after rig release date (6 months possible extension)	60 Days
13.A (8) BGT-Approved design	Yes*	Submit Closure Plan with application to construct and operate	Close within 60 days of cessation	60 Days
12.E Sump	N/A	N/A	If lost integrity – Repair or replace	60 Days

*Must submit an application to construct, operate and close on a Form C-144.

**If a temporary pit is used for in-place burial of a drying pad, then must comply with the design and construction requirements of Paragraphs (1) – (6) and (10) of Subsection F of 19.15.17.11 NMAC.

TRANSITION OF EXISTING PERMITTED OPERATIONS (The Gray Zone)

19.15.17.17.E NMAC

Do I need to resubmit a pit closure plan for approval under Part 17 if the plan has already been approved under the “old” Rule 50?

- Possibly:
- Yes, if no closure activity (e.g., liquids pumping, dirt moving, etc.) has taken place at the pit site prior to effective date of Rule 17 (June 16, 2008), then you must submit a “new” form C-144 to apply for closure plan approval for the pit. The C-144 must be submitted within 30 days of June 16, 2008 for approval. If the pit is unlined, then it must be closed within 3 months of June 16, 2008. If the pit is lined, then it must be closed within 6 months of June 16, 2008.
- No, if closure activity (e.g., liquids pumping, dirt moving, etc.) has commenced at the pit site on or before June 15, 2008, then you may proceed with your approved (under Rule 50) closure plan. However, if the pit is unlined, then it must be closed within 3 months of June 16, 2008. If the pit is lined, then it must be closed within 6 months of June 16, 2008.

Do I need to file a new C-144 for a pit permitted under the prior rule?

- If a pit, closed-loop system or below-grade tank was permitted prior to June 16, 2008, but not constructed prior to June 16, 2008, a new C-144 is required to permit that pit, closed-loop system or below-grade tank. The operator should be aware that the new C-144 application should also include the submittal of a closure plan for consideration of approval.
- If a pit, closed-loop system or below-grade tank was permitted and constructed prior to June 16, 2008, a new C-144 to permit that pit is not required. The pit, closed-loop system or below-grade tank must comply with the operational and closure requirements pursuant to the new rule. The operator is required to submit a new C-144 closure plan for consideration of approval.

CONTACT INFORMATION

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