

**TITLE 19       NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 15   OIL AND GAS**  
**PART 36       SURFACE WASTE MANAGEMENT FACILITIES**

**19.15.36.1       ISSUING AGENCY:** Energy, Minerals and Natural Resources Department, Oil Conservation Division.

[19.15.36.1 NMAC - N, 2/14/2007; A, 12/1/08]

**19.15.36.2       SCOPE:** 19.15.36 NMAC applies to persons or entities that operate surface waste management facilities as defined in Subsection S of 19.15.2.7 NMAC.

[19.15.36.2 NMAC - N, 2/14/2007; A, 12/1/08; A, 6/30/16]

**19.15.36.3       STATUTORY AUTHORITY:** 19.15.36 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Section 70-2-6, Section 70-2-11 and Section 70-2-12, which grants the division jurisdiction and authority over the disposition of wastes resulting from oil and gas operations.

[19.15.36.3 NMAC - N, 2/14/2007; A, 12/1/08]

**19.15.36.4       DURATION:** Permanent.

[19.15.36.4 NMAC - N, 2/14/2007]

**19.15.36.5       EFFECTIVE DATE:** February 14, 2007, unless a later date is cited at the end of a section.

[19.15.36.5 NMAC - N, 2/14/2007; A, 12/1/08]

**19.15.36.6       OBJECTIVE:** To regulate the disposal of oil field waste and the construction, operation, closure and post closure of surface waste management facilities.

[19.15.36.6 NMAC - N, 2/14/2007; A, 6/30/16]

**19.15.36.7       DEFINITIONS:**

**A.** Definitions relating to types of surface waste management facilities.

(1) "Centralized facility" means a surface waste management facility:

(a) that is used exclusively by one generator subject to New Mexico's Oil and Gas Conservation Tax Act, NMSA 1978, Section 7-30-1, as amended;

(b) where the generator or operator does not receive compensation for oil field waste management at that facility; and

(c) receives exclusively oil field wastes that are generated from production units or leases the generator, or an affiliate of the generator, operates (for this provision's purposes, an affiliate of a generator is a person who controls, is controlled by or is under common control with the generator).

(2) "Commercial facility" means a surface waste management facility that is not a centralized facility.

(3) "Landfarm" means a discrete area of land designated and used for the remediation of petroleum hydrocarbon-contaminated soils and drill cuttings.

(4) "Landfill" means a discrete area of land or an excavation designed for permanent disposal of exempt or non-hazardous waste.

(5) "Small landfarm" means a centralized landfarm of two acres or less that has a total capacity of 2000 cubic yards or less in a single lift of eight inches or less, remains active for a maximum of three years from the date of its registration and that receives only petroleum hydrocarbon-contaminated soils (excluding drill cuttings) that are exempt or non-hazardous waste.

**B.** Other definitions.

(1) "Active portion" means that part of a surface waste management facility that has received or is receiving oil field waste and has not been closed.

(2) "Cell" means a confined area engineered for the disposal or treatment of oil field waste.

(3) "Composite liner" means a liner that may consist of multiple layers of geosynthetics and low-permeability soils. The different layers of a composite liner may have different material properties and may be applied at different stages of landfill liner installation.

(4) "Geosynthetic" means the general classification of synthetic materials used in geotechnical applications, including the following classifications:

- (a) “geocomposite” means a manufactured material using geotextiles, geogrids or geomembranes, or combinations thereof, in a laminated or composite form;
  - (b) “geogrid” means a deformed or non-deformed, netlike polymeric material used to provide reinforcement to soil slopes;
  - (c) “geomembrane” means an impermeable polymeric sheet material that is impervious to liquid and gas as long as it maintains its integrity, and is used as an integral part of an engineered structure designed to limit the movement of liquid or gas in a system;
  - (d) “geonet” means a type of geogrid that allows planar flow of liquids and serves as a drainage system;
  - (e) “geosynthetic clay liner (GCL)” means a relatively thin layer of processed clay (typically bentonite) that is either bonded to a geomembrane or fixed between two sheets of geotextile; and
  - (f) “geotextile” means a sheet material that is less impervious to liquid than a geomembrane but more resistant to penetration damage, and is used as part of an engineered structure or system to serve as a filter to prevent the movement of soil fines into a drainage system, to provide planar flow for drainage, to serve as a cushion to protect geomembranes or to provide structural support.
  - (5) “Leachate” means the liquid that has passed through or emerged from oil field waste and contains soluble, suspended or miscible materials.
  - (6) “Landfarm cell” means a bermed area of 10 acres or less within a landfarm.
  - (7) “Landfarm lift” means an accumulation of soil or drill cuttings predominately contaminated by petroleum hydrocarbons that is placed into a landfarm cell for treatment.
  - (8) “Lower explosive limit” means the lowest percent by volume of a mixture of explosive gases in air that will propagate a flame at 77 degrees fahrenheit and atmospheric pressure.
  - (9) “Major modification” means a modification of a surface waste management facility that involves an increase in the land area that the permitted surface waste management facility occupies; a change in the design capacity or nature of the permitted oil field waste stream; addition of a new treatment process; an exception to, waiver of or change to a numerical standard provided in 19.15.36 NMAC; or other modification that the division determines is sufficiently substantial that public notice and public participation in the application process are appropriate.
  - (10) “Minor modification” means a modification of a surface waste management facility that is not a major modification.
  - (11) “Operator” means the person who owns the surface waste management facility.
  - (12) “Poor foundation conditions” are features that indicate that a natural or human-induced event may result in inadequate foundational support for a surface waste management facility’s structural components.
  - (13) “Run-off” means rainwater, leachate or other liquid that drains over land from any part of a surface waste management facility.
  - (14) “Structural components of a landfill” are liners, leachate collection and removal systems, final covers, run-on/run-off systems and other components used in a landfill’s construction or operation that are necessary for protection of fresh water, public health or the environment.
- [19.15.36.7 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

#### **19.15.36.8 SURFACE WASTE MANAGEMENT FACILITY PERMITS AND APPLICATION REQUIREMENTS:**

**A.** Permit required. No person shall operate a surface waste management facility (other than a small landfarm registered pursuant to Paragraph (1) of Subsection A of 19.15.36.16 NMAC) except pursuant to and in accordance with the terms and conditions of a division-issued surface waste management facility permit. The applicant for a permit or permit modification, renewal or transfer shall be the operator of the surface waste management facility. The operator is responsible for the actions of the operator’s officers, employees, consultants, contractors and subcontractors as they relate to the operation of the surface waste management facility. Any person who is involved in a surface waste management facility’s operation shall comply with 19.15.36 NMAC and the permit.

**B.** Permitting requirements. Except for small landfarms registered pursuant to Paragraph (1) of Subsection A of 19.15.36.16 NMAC, new commercial or centralized facilities prior to commencement of construction, and existing commercial or centralized facilities prior to modification or permit renewal, shall be permitted by the division in accordance with the applicable requirements of Subsection C of 19.15.36.8 NMAC and 19.15.36.11 NMAC.

**C.** Application requirements for new facilities, major modifications and permit renewals. An applicant or operator shall file an application, form C-137, for a permit for a new surface waste management facility, to modify an existing surface waste management facility or for permit renewal with the environmental bureau in the division's Santa Fe office. The application shall include:

(1) the names and addresses of the applicant and principal officers and owners of twenty-five percent or more of the applicant;

(2) a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one-half mile of the site's perimeter based upon the records of the applicable county clerk or clerk's office;

(3) the names and addresses of the surface owners of the real property on which the surface waste management facility is sited and surface owners of the real property within one mile of the site's perimeter;

(4) a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas;

(5) engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments;

(6) a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13 NMAC, 19.15.36.14 NMAC, 19.15.36.15 NMAC and 19.15.36.17 NMAC;

(7) an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC;

(8) a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.11 NMAC that apply to surface waste management facilities;

(9) a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health and the environment, and to comply with the closure and post closure requirements contained in Subsections A through F of 19.15.36.18 NMAC;

(10) a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended;

(11) a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC;

(12) in the case of an application to permit a new or expanded landfill, a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options;

(13) in the case of an application to permit a new or expanded landfill, a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC;

(14) a best management practice plan to ensure protection of fresh water, public health and the environment;

(15) geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; BTEX; RCRA metals; and TDS of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer;

(e) geologic cross-sections;

(f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed;

(16) certification by the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge, after reasonable inquiry; and

(17) other information that the division may require to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health or the environment and that the surface waste management facility will comply with division rules and orders.

**D.** Application requirements for minor modifications. Before making a minor modification, the operator of an existing surface waste management facility shall file a form C-137A with the environmental bureau in the division's Santa Fe office describing the proposed change. Minor modifications are not subject to Subsection C of 19.15.36.8 NMAC. If the division denies the application for a minor modification, the operator may request a hearing pursuant to Subsection B of 19.15.36.10 NMAC.

[19.15.36.8 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

**19.15.36.9 APPLICATION PROCESS AND NOTICE REQUIREMENTS FOR NEW SURFACE WASTE MANAGEMENT FACILITIES, MAJOR MODIFICATIONS OR RENEWALS AND ISSUANCE OF A FINAL DECISION:**

**A.** Submittal of application. The applicant shall submit three copies (two paper copies and one electronic copy) of the application to the division's Santa Fe office for consideration of approval. Upon receipt of an application for a new surface waste management facility, or a renewal or major modification of an existing permit, the division shall post a notice on the division's website that lists the type of facility, type of application, county or municipality where the facility is located and name of the applicant, and provides information on where the application can be viewed and whom to contact to be placed on a mailing list for notice regarding a proposed decision.

**B.** Division review: Within 90 days after the receipt of an application, the division shall review the application and determine if the application is approvable, approval with conditions or not approvable.

(1) Upon completion of the division's review, if the division determines the application is approvable, the division shall, within 30 days following such determination, prepare a proposed decision, which may include conditions, and mail notice of the proposed approval, together with a copy of the proposed decision, by certified mail, return receipt requested, to the applicant. The division shall post the proposed decision on the division's website.

(2) Upon completion of the division's review, if the division determines the application is not approvable, the division shall, within 60 days of such determination, mail a deficiency letter by certified mail, return receipt requested, to the applicant. The deficiency letter shall identify and address all of the division's concerns regarding the application in specific detail allowing the applicant the opportunity to correct the deficiencies by submitting a revised application.

(3) If the division issues a deficiency letter, the applicant shall have 60 days from the division's issuance of the deficiency letter to submit a revised application. The applicant may request, in writing, additional time to submit a revised application. The division shall grant additional time for good cause. The applicant may notify the division that it will not submit a revised application. Within 10 days of receipt of the notification the division shall deny the application without prejudice. If the applicant fails to timely submit a revised application or notify the division that it will not submit a revised application, the division shall deny the application without prejudice within 10 days after the 60 day time limit for the applicant to respond to the deficiency letter has expired.

(4) If the applicant timely submits a revised application, within 90 days of the receipt of the revised application the division shall review the revised application and determine if the revised application is approvable, approvable with conditions or not approvable. The division shall mail notice of denial or the proposed approval with or without conditions, together with a copy of the decision to deny or the proposed decision to approve with or without conditions, by certified mail, return receipt requested, to the applicant. A denial letter shall identify and address all of the division's reasons for denial of the revised application. The division shall post the decision to deny the application or the proposed decision to approve the application with or without conditions on the division's website.

(5) The process provided in Subsection B of 19.15.36.9 NMAC is not intended to limit informal informational exchanges during the application review period or prior to submission of an application. The process also does not prohibit an applicant from withdrawing an application and submitting a new application under Subsection A of 19.15.36.9 NMAC.

**C.** Upon receipt of a proposed decision to approve an application with or without conditions, the applicant shall provide a division-approved notice of the proposed approval by:

(1) giving written notice, by certified mail, return receipt requested, of the division's proposed decision to approve the application with or without conditions to the surface owners within one-half mile of the surface waste facility;

(2) publishing in a newspaper of general circulation in the county or counties where the surface waste management facility is or will be located;

(3) mailing notice by first class mail or e-mail to persons, as identified to the applicant by the division, who have requested notification of applications generally, or of the particular application, and who have provided a legible return address or e-mail address; and

(4) mailing notice by first class or e-mail to affected local, state, federal or tribal governmental agencies, as determined and identified to the applicant by the division.

**D.** This notice issued pursuant to Subsection C of 19.15.36.9 NMAC shall include:

(1) the applicant's name and address;

(2) the surface waste management facility's location, including a street address if available, and sufficient information to locate the surface waste management facility with reference to surrounding roads and landmarks;

(3) a brief description including the type of facility (*i.e.* landfarm, landfill, treating plant, etc.) of the proposed surface waste management facility;

(4) the depth to, and TDS concentration of, the ground water in the shallowest aquifer beneath the surface waste management facility site;

(5) a statement that the division's proposed decision to approve the application with or without conditions is available on the division's website, or, upon request, from the division clerk, including the division clerk's name, address and telephone number;

(6) a division-approved description of alternatives, exceptions or waivers that may be under consideration in accordance with Subsection F of 19.15.36.18 NMAC or 19.15.36.19 NMAC; and

(7) a statement of the procedures for requesting a hearing on the application pursuant to 19.15.4 NMAC.

**E.** The applicant shall mail notice that is required to be mailed on or before publication of the notice that is published in a newspaper of general circulation in the county or counties where the surface waste management facility is or will be located.

**F.** The applicant shall provide the division with proof that the public notice requirements of Subsections C and D of 19.15.36.9 NMAC have been met prior to the division scheduling a hearing pursuant to 19.15.36.10 NMAC or issuing the permit.

**G.** If after the applicant provides notice as required herein, no requests for hearing are timely filed with the division as provided by 19.15.36.10 NMAC, or any such requests for hearing are filed by persons the division determines lack standing, and the division does not otherwise schedule a hearing pursuant to 19.15.36.10 NMAC, the division's proposed decision to approve the application with or without conditions shall become final and the division shall issue the permit upon the applicant providing financial assurance as provided in 19.15.36.10 NMAC.

[19.15.36.9 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; Repealed, 6/30/16; 19.15.36.9 NMAC - N, 6/30/16]

#### **19.15.36.10 COMMENTS AND HEARING ON APPLICATION:**

**A.** A person who wishes to comment or request a hearing shall file comments or request a hearing on the proposed approval of an application with the division clerk within 90 days after the date of the newspaper publication provided in Subsection C of 19.15.36.9 NMAC. A request for a hearing shall be in writing and shall state specifically the reasons why a hearing should be held. The director may deny a request for hearing if the director determines the person requesting the hearing lacks standing.

**B.** If the division denies an application pursuant to Paragraphs (3) or (4) of Subsection B of 19.15.39.9 NMAC, the applicant may request a hearing within 30 days of the receipt of the notice of denial and the division shall schedule a hearing.

**C.** In addition to the requests for hearing provided in Subsections A and B of 19.15.36.10 NMAC, the division shall schedule a hearing on the application if:

(1) the division's proposed decision to approve the application includes conditions not expressly required by rule, and the applicant requests a hearing within 90 days of receipt of the notice of proposed approval;

(2) the director determines that there is significant public interest in the application;

(3) the director determines that comments have raised objections that have probable technical merit; or

(4) approval of the application requires that the division make a finding, pursuant to Paragraph (3) of Subsection F of 19.15.2.7 NMAC, whether a water source has a present or reasonably foreseeable beneficial use that contamination would impair.

D. If the division schedules a hearing on an application, the hearing shall be conducted according to 19.15.4 NMAC.

[19.15.36.10 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

#### **19.15.36.11 FINANCIAL ASSURANCE REQUIREMENTS:**

A. Centralized facilities. Upon notification by the division that it has approved a permit but prior to the division issuing the permit, an applicant for a new centralized facility permit shall submit acceptable financial assurance in the amount of \$25,000 per centralized facility, or a statewide "blanket" financial assurance in the amount of \$50,000 to cover all of that applicant's centralized facilities, unless such applicant has previously posted a blanket financial assurance for centralized facilities.

B. New commercial facilities or major modifications of existing commercial facilities. Upon notification by the division that it has approved a permit for a new commercial facility or a major modification of an existing commercial facility but prior to the division issuing the permit, the applicant shall submit acceptable financial assurance in the amount of the commercial facility's estimated closure and post closure cost, or \$25,000, whichever is greater. The commercial facility's estimated closure and post closure cost shall be the amount provided in the closure and post closure plan the applicant submitted pursuant to Paragraph (9) of Subsection C of 19.15.36.8 NMAC unless the division determines that such estimate does not reflect a reasonable and probable closure and post closure cost to implement the closure and post closure plan, in which event, the division shall determine the estimated closure and post closure cost and shall include such determination in its proposed decision. If the applicant disagrees with the division's determination of estimated closure and post closure cost, the applicant may request a hearing as provided in 19.15.36.10 NMAC. If the applicant so requests, and no other person files a request for a hearing regarding the proposed decision, the hearing shall be limited to determination of estimated closure and post closure cost.

C. Terms of financial assurance. The financial assurance shall be on division-prescribed forms, or forms otherwise acceptable to the division, payable to the energy, minerals and natural resources department, oil conservation division and conditioned upon the surface waste management facility's proper operation, site closure and post closure operations in compliance with state of New Mexico statutes, division rules, applicable division orders and the surface waste management facility permit terms. The division may require proof that the individual signing for an entity on a financial assurance document or any amendment thereto has the authority to obligate that entity.

D. Forfeiture of financial assurance. The division shall give the operator 20 days' notice and an opportunity for a hearing prior to forfeiting financial assurance. All forfeitures the division demands pursuant to 19.15.36 NMAC shall be made payable to the energy, minerals and natural resources department, oil conservation division upon demand by the division.

E. Forms of financial assurance. The division may accept the following forms of financial assurance.

(1) Surety bonds. A surety bond shall be executed and notarized by the applicant and by a corporate surety licensed by the superintendent of insurance to do business in the state. All surety bonds shall be non-cancelable and payable to the energy, minerals and natural resources department, oil conservation division within 45 days after demand is made by the division. All surety bonds shall be governed by the laws of the state of New Mexico.

(2) Letters of credit. A letter of credit shall be issued by a national or state-chartered banking association, shall be irrevocable for a term of not less than five years and shall provide for automatic renewal for successive, like terms upon expiration, unless the issuer has notified the division in writing of non-renewal at least 120 days before its expiration date. All letters of credit shall be governed by the laws of the state of New Mexico. If a letter of credit is not replaced by an approved financial assurance within 30 days of notice of non-renewal provided to the division, the division may demand and collect a letter of credit.

(3) Cash accounts. An operator may provide financial assurance in the form of a federally insured or equivalently protected cash account or accounts in a financial institution, provided that the operator and the financial institution shall execute as to each such account a collateral assignment of the account to the division, which shall provide that only the division may authorize withdrawals from the account. In the event of forfeiture pursuant to 19.15.36 NMAC, the division may, at any time and from time to time, direct payment of all or part of the

balance of such account (excluding interest accrued on the account) to itself or its designee for the surface waste management facility's closure and post closure. Any assignment of cash collateral shall be governed by the laws of the state of New Mexico and shall be on division-prescribed forms.

**F. Replacement of financial assurance.**

(1) The division may allow an operator to replace existing forms of financial assurance with other forms of financial assurance that provide equivalent coverage.

(2) The division shall not release existing financial assurance until the operator has submitted, and the division has approved, an acceptable replacement.

(3) Any time an operator changes the corporate surety, financial institution or amount of financial assurance, the operator shall file updated financial assurance documents on division-prescribed forms within 30 days. Notwithstanding the foregoing, if an operator makes other changes to its financial assurance documents, the division may require the operator to file updated financial assurance documents on division-prescribed forms within 45 days after notice to the operator from the division.

**G. Review of adequacy of financial assurance.** The division may at any time not less than five years after initial acceptance of financial assurance for a commercial facility, or whenever the operator applies for a major modification of the commercial facility's permit, and at least once during every successive five-year period, initiate a review of such financial assurance's adequacy. Additionally, whenever the division determines that a landfarm operator has not achieved the closure standards specified in Paragraph (3) of Subsection G of 19.15.36.15 NMAC, the division may review the adequacy of the landfarm operator's financial assurance, without regard to the date of its last review. Upon determination, after notice to the operator and an opportunity for a hearing, that the financial assurance is not adequate to cover the reasonable and probable cost of a commercial facility's closure and post closure operations, the division may require the operator to furnish additional financial assurance sufficient to cover such reasonable and probable cost.

**H. Duty to report.** Any operator who files for bankruptcy shall provide notice to the division, through the process provided for under the rules of the United States bankruptcy court, and the New Mexico attorney general.

[19.15.36.11 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 6/30/16]

**19.15.36.12 PERMIT APPROVAL, DENIAL, REVOCATION, SUSPENSION, MODIFICATION OR TRANSFER:**

**A. Granting of permit.**

(1) The division may issue a permit for an new surface waste management facility or major modification upon finding that an acceptable application has been filed, that the conditions of 19.15.36.9 NMAC and 19.15.36.11 NMAC have been met and that the surface waste management facility or modification can be constructed and operated in compliance with applicable statutes and rules and without endangering fresh water, public health or the environment.

(2) Each permit the division issues for a new surface waste management facility shall remain in effect for 10 years from the date of its issuance. If the division grants a permit for a major modification of a surface waste management facility, the permit for that surface waste management facility shall remain in effect for 10 years from the date the division approves the major modification.

(a) A surface waste management facility permit may be renewed for successive 10-year terms. If the holder of a surface waste management facility permit submits an application for permit renewal at least 120 days before the surface waste management facility permit expires, and the operator is not in violation of the surface waste management facility permit on the date of its expiration, then the existing surface waste management facility permit for the same activity shall not expire until the division has approved or denied an application for renewal. If the division has not notified the operator of a violation, if the operator is diligently pursuing procedures to contest a violation or if the operator and the division have signed an agreed compliance order providing for remedying the violation, then the surface waste management facility permit shall continue in effect as above provided notwithstanding the surface waste management facility permit violation's existence. A surface waste management facility permit continued under this provision remains fully effective and enforceable.

(b) An application for permit renewal shall include and adequately address the information necessary for evaluation of a new surface waste management facility permit as provided in Subsection C of 19.15.36.8 NMAC. Previously submitted materials may be included by reference provided they are current, readily available to the division and sufficiently identified so that the division may retrieve them.

(c) Upon receipt of a proposed decision to approve a renewal application, the operator shall give public notice in the manner prescribed by 19.15.36.9 NMAC. The division shall grant an

application for renewal if the division finds that an acceptable application has been filed, that the conditions of 19.15.36.9 NMAC and 19.15.36.11 NMAC have been met and that the surface waste management facility can be operated in compliance with applicable statutes and rules and without endangering fresh water, public health or the environment.

(3) The division shall review each surface waste management facility permit at least once during the 10-year term, and shall review surface waste management facility permits to which Paragraph (2) of Subsection A of 19.15.36.12 NMAC does not apply at least every five years. The review shall address the operation, compliance history, financial assurance and technical requirements for the surface waste management facility. The division, after notice to the operator and an opportunity for a hearing, may require appropriate modifications of the surface waste management facility permit, including modifications necessary to make the surface waste management facility permit terms and conditions consistent with statutes, rules or judicial decisions.

**B.** Denial of permit. The division may deny an application for a surface waste management facility permit or modification of a surface waste management facility permit if it finds that the proposed surface waste management facility or modification may be detrimental to fresh water, public health or the environment. The division may also deny an application for a surface waste management facility permit if the applicant, an owner of twenty-five percent or greater interest in the applicant or an affiliate of the applicant has a history of failure to comply with division rules and orders or state or federal environmental laws; is subject to a division or commission order, issued after notice and hearing, finding such entity to be in violation of an order requiring corrective action; or has a penalty assessment for violation of division or commission rules or orders that is unpaid more than 70 days after issuance of the order assessing the penalty. An affiliate of an applicant, for purposes of Subsection B of 19.15.36.12 NMAC, shall be a person who controls, is controlled by or under is common control with the applicant or a twenty-five percent or greater owner of the applicant.

**C.** Additional requirements. The division may impose conditions or requirements, in addition to the operational requirements set forth in 19.15.36 NMAC, that it determines are necessary and proper for the protection of fresh water, public health or the environment. The division shall incorporate such additional conditions or requirements into the surface waste management facility permit.

**D.** Revocation, suspension or modification of a permit. The division may revoke, suspend or impose additional operating conditions or limitations on a surface waste management facility permit at any time, for good cause, after notice to the operator and an opportunity for a hearing. The division may suspend a surface waste management facility permit or impose additional conditions or limitations in an emergency to forestall an imminent threat to fresh water, public health or the environment, subject to the provisions of NMSA 1978, Section 70-2-23, as amended. If the division initiates a major modification it shall provide notice in accordance with 19.15.36.9 NMAC. Suspension of a surface waste management facility permit may be for a fixed period of time or until the operator remedies the violation or potential violation. If the division suspends a surface waste management facility's permit, the surface waste management facility shall not accept oil field waste during the suspension period.

**E.** Transfer of a permit. The operator shall not transfer a permit without the division's prior written approval. A request for transfer of a permit shall identify officers, directors and owners of twenty-five percent or greater in the transferee. Unless the director otherwise orders, public notice or hearing are not required for the transfer request's approval. If the division denies the transfer request, it shall notify the operator and the proposed transferee of the denial by certified mail, return receipt requested, and either the operator or the proposed transferee may request a hearing with 10 days after receipt of the notice. Until the division approves the transfer and the required financial assurance is in place, the division shall not release the transferor's financial assurance. [19.15.36.12 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

**19.15.36.13 SITING AND OPERATIONAL REQUIREMENTS APPLICABLE TO ALL PERMITTED SURFACE WASTE MANAGEMENT FACILITIES:** Except as otherwise provided in 19.15.36 NMAC.

**A.** Depth to ground water.

(1) No landfill shall be located where ground water is less than 100 feet below the lowest elevation of the design depth at which the operator will place oil field waste.

(2) No landfarm that accepts soil or drill cuttings with a chloride concentration that exceeds 500 mg/kg shall be located where ground water is less than 100 feet below the lowest elevation at which the operator will place oil field waste. See Subsection A of 19.15.36.15 NMAC for oil field waste acceptance criteria.

(3) No landfarm that accepts soil or drill cuttings with a chloride concentration that is 500 mg/kg or less shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.



(4) No small landfarm shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.

(5) No other surface waste management facility shall be located where ground water is less than 50 feet below the lowest elevation at which the operator will place oil field waste.

**B.** No surface waste management facility shall be located:

(1) within 200 feet of a watercourse, lakebed, sinkhole or playa lake;

(2) within an existing wellhead protection area or 100-year floodplain;

(3) within, or within 500 feet of, a wetland;

(4) within the area overlying a subsurface mine;

(5) within 500 feet from the nearest permanent residence, school, hospital, institution or church in existence at the time of initial application; or

(6) within an unstable area, unless the operator demonstrates that engineering measures have been incorporated into the surface waste management facility design to ensure that the surface waste management facility's integrity will not be compromised.

**C.** No surface waste management facility shall exceed 500 acres.

**D.** The operator shall not accept oil field wastes transported by motor vehicle at the surface waste management facility unless the transporter has a form C-133, authorization to move liquid waste, approved by the division.

**E.** The operator shall not place oil field waste containing free liquids in a landfill or landfarm cell. The operator shall use the paint filter test, as prescribed by the EPA (EPA SW-846, method 9095) to determine conformance of the oil field waste to this criterion.

**F.** Surface waste management facilities shall accept only exempt or non-hazardous waste, except as provided in Paragraph (3) of Subsection F of 19.15.36.13 NMAC. The operator shall not accept hazardous waste at a surface waste management facility. The operator shall not accept wastes containing NORM at a surface waste management facility except as provided in 19.15.35 NMAC. The operator shall require the following documentation for accepting oil field wastes, and both the operator and the generator shall maintain and make the documentation available for division inspection.

(1) Exempt oil field wastes. The operator shall require a certification on form C-138, signed by the generator or the generator's authorized agent, that represents and warrants that the oil field wastes are generated from oil and gas exploration and production operations, are exempt waste and are not mixed with non-exempt waste. The operator shall have the option to accept such certifications on a monthly, weekly or per load basis. The operator shall maintain and shall make the certificates available for the division's inspection.

(2) Non-exempt, non-hazardous, oil field wastes. The operator shall require a form C-138, oil field waste document, signed by the generator or its authorized agent. This form shall be accompanied by acceptable documentation to determine that the oil field waste is non-hazardous.

(3) Emergency non-oil field wastes. The operator may accept non-hazardous, non-oil field wastes in an emergency if ordered by the department of public safety. The operator shall complete a form C-138, oil field waste document, describing the waste, and maintain the same, accompanied by the department of public safety order, subject to division inspection.

**G.** The operator of a commercial facility shall maintain records reflecting the generator, the location of origin, the location of disposal within the commercial facility, the volume and type of oil field waste, the date of disposal and the hauling company for each load or category of oil field waste accepted at the commercial facility. The operator shall maintain such records for a period of not less than five years after the commercial facility's closure, subject to division inspection.

**H.** Disposal at a commercial facility shall occur only when an attendant is on duty unless loads can be monitored or otherwise isolated for inspection before disposal. The surface waste management facility shall be secured to prevent unauthorized disposal.

**I.** To protect migratory birds, tanks exceeding eight feet in diameter, and exposed pits and ponds shall be screened, netted or covered. Upon the operator's written application, the division may grant an exception to screening, netting or covering upon the operator's showing that an alternative method will protect migratory birds or that the surface waste management facility is not hazardous to migratory birds. Surface waste management facilities shall be fenced in a manner approved by the division.

**J.** Surface waste management facilities shall have a sign, readable from a distance of 50 feet and containing the operator's name; surface waste management facility permit or order number; surface waste management facility location by unit letter, section, township and range; and emergency telephone numbers.

**K.** The operators shall comply with the spill reporting and corrective action provisions of 19.15.30 NMAC or 19.15.29 NMAC.

**L.** Each operator shall have an inspection and maintenance plan that includes the following:

(1) monthly inspection of leak detection sumps including sampling if fluids are present with analyses of fluid samples furnished to the division; and maintenance of records of inspection dates, the inspector and the leak detection system's status;

(2) semi-annual inspection and sampling of monitoring wells as required, with analyses of ground water furnished to the division; and maintenance of records of inspection dates, the inspector and ground water monitoring wells' status; and

(3) inspections of the berms and the outside walls of pond levees quarterly and after a major rainfall or windstorm, and maintenance of berms in such a manner as to prevent erosion.

**M.** Each operator shall have a plan to control run-on water onto the site and run-off water from the site, such that:

(1) the run-on and run-off control system shall prevent flow onto the surface waste management facility's active portion during the peak discharge from a 25-year storm; and

(2) run-off from the surface waste management facility's active portion shall not be allowed to discharge a pollutant to the waters of the state or United States that violates state water quality standards.

**N.** Contingency plan. Each operator shall have a contingency plan. The operator shall provide the division's environmental bureau with a copy of an amendment to the contingency plan, including amendments required by Paragraph (8) of Subsection N of 19.15.36.13 NMAC; and promptly notify the division's environmental bureau of changes in the emergency coordinator or in the emergency coordinator's contact information. The contingency plan shall be designed to minimize hazards to fresh water, public health or the environment from fires, explosions or an unplanned sudden or non-sudden release of contaminants or oil field waste to air, soil, surface water or ground water. The operator shall carry out the plan's provisions immediately whenever there is a fire, explosion or release of contaminants or oil field waste constituents that could threaten fresh water, public health or the environment; provided that the emergency coordinator may deviate from the plan as necessary in an emergency situation. The contingency plan for emergencies shall:

(1) describe the actions surface waste management facility personnel shall take in response to fires, explosions or releases to air, soil, surface water or ground water of contaminants or oil field waste containing constituents that could threaten fresh water, public health or the environment;

(2) describe arrangements with local police departments, fire departments, hospitals, contractors and state and local emergency response teams to coordinate emergency services;

(3) list the emergency coordinator's name; address; and office, home and mobile phone numbers (where more than one person is listed, one shall be named as the primary emergency coordinator);

(4) include a list, which shall be kept current, of emergency equipment at the surface waste management facility, such as fire extinguishing systems, spill control equipment, communications and alarm systems and decontamination equipment, containing a physical description of each item on the list and a brief outline of its capabilities;

(5) include an evacuation plan for surface waste management facility personnel that describes signals to be used to begin evacuation, evacuation routes and alternate evacuation routes in cases where fire or releases of wastes could block the primary routes;

(6) include an evaluation of expected contaminants, expected media contaminated and procedures for investigation, containment and correction or remediation;

(7) list where copies of the contingency plan will be kept, which shall include the surface waste management facility; local police departments, fire departments and hospitals; and state and local emergency response teams;

(8) indicate when the contingency plan will be amended, which shall be within five working days whenever:

(a) the surface waste management facility permit is revised or modified;

(b) the plan fails in an emergency;

(c) the surface waste management facility changes design, construction, operation, maintenance or other circumstances in a way that increases the potential for fires, explosions or releases of oil field waste constituents that could threaten fresh water, public health or the environment or change the response necessary in an emergency;

(d) the list of emergency coordinators or their contact information changes; or

(e) the list of emergency equipment changes;

(9) describe how the emergency coordinator or the coordinator's designee, whenever there is an imminent or actual emergency situation, will immediately;

(a) activate internal surface waste management facility alarms or communication systems, where applicable, to notify surface waste management facility personnel; and

(b) notify appropriate state and local agencies with designated response roles if their assistance is needed;

(10) describe how the emergency coordinator, whenever there is a release, fire or explosion, will immediately identify the character, exact source, amount and extent of released materials (the emergency coordinator may do this by observation or review of surface waste management facility records or manifests, and, if necessary, by chemical analysis) and describe how the emergency coordinator will concurrently assess possible hazards to fresh water, public health or the environment that may result from the release, fire or explosion (this assessment shall consider both the direct and indirect hazard of the release, fire or explosion);

(11) describe how, if the surface waste management facility stops operations in response to fire, explosion or release, the emergency coordinator will monitor for leaks, pressure buildup, gas generation or rupture in valves, pipes or the equipment, wherever this is appropriate;

(12) describe how the emergency coordinator, immediately after an emergency, will provide for treating, storing or disposing of recovered oil field waste, or other material that results from a release, fire or explosion at a surface waste management facility;

(13) describe how the emergency coordinator will ensure that no oil field waste, which may be incompatible with the released material, is treated, stored or disposed of until cleanup procedures are complete; and

(14) provide that the emergency coordinator may amend the plan during an emergency as necessary to protect fresh water, public health or the environment.

**O.** Gas safety management plan. Each operator of a surface waste management facility that includes a landfill shall have a gas safety management plan that describes in detail procedures and methods that will be used to prevent landfill-generated gases from interfering or conflicting with the landfill's operation and protect fresh water, public health and the environment. The plan shall address anticipated amounts and types of gases that may be generated, an air monitoring plan that includes the vadose zone and measuring, sampling, analyzing, handling, control and processing methods. The plan shall also include final post closure monitoring and control options.

**P.** Training program. Each operator shall conduct an annual training program for key personnel that includes general operations, permit conditions, emergencies proper sampling methods and identification of exempt and non-exempt waste and hazardous waste. The operator shall maintain records of such training, subject to division inspection, for five years.

[19.15.36.13 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

#### **19.15.36.14 SPECIFIC REQUIREMENTS APPLICABLE TO LANDFILLS:**

##### **A.** General operating requirements.

(1) The operator shall confine the landfill's working face to the smallest practical area and compact the oil field waste to the smallest practical volume. The operator shall not use equipment that may damage the integrity of the liner system in direct contact with a geosynthetic liner.

(2) The operator shall prevent unauthorized access by the public and entry by large animals to the landfill's active portion through the use of fences, gates, locks or other means that attain equivalent protection.

(3) The operator shall prevent and extinguish fires.

(4) The operator shall control litter and odors.

(5) The operator shall not excavate a closed cell or allow others to excavate a closed cell except as approved by the division.

(6) The operator shall provide adequate cover for the landfill's active face as needed to control dust, debris, odors or other nuisances, or as otherwise required by the division.

(7) For areas of the landfill that will not receive additional oil field waste for one month or more, but have not reached the final waste elevation, the operator shall provide intermediate cover that shall be:

(a) approved by the division;

(b) stabilized with vegetation; and

(c) inspected and maintained to prevent erosion and manage infiltration or leachate during the oil field waste deposition process.

(8) When the operator has filled a landfill cell, the operator shall close it pursuant to the conditions contained in the surface waste management facility permit and the requirements of Paragraph (2) of

Subsection C of 19.15.36.18 NMAC. The operator shall notify the division's environmental bureau at least three working days prior to a landfill cell's closure.

**B.** Ground water monitoring program. If fresh ground water exists at a site, the operator shall, unless otherwise approved by the division, establish a ground water monitoring program, approved by the division's environmental bureau, which shall include a ground water monitoring work plan, a sampling and analysis plan, a ground water monitoring system and a plan for reporting ground water monitoring results. The ground water monitoring system shall consist of a sufficient number of wells, installed at appropriate locations and depths, to yield ground water samples from the uppermost aquifer that:

- (1) represent the quality of background ground water that leakage from a landfill has not affected; and
- (2) represent the quality of ground water passing beneath and down gradient of the surface waste management facility.

**C.** Landfill design specification. New landfill design systems shall include a base layer and a lower geomembrane liner (*e.g.*, composite liner), a leak detection system, an upper geomembrane liner, a leachate collection and removal system, a leachate collection and removal system protective layer, an oil field waste zone and a top landfill cover.

(1) The base layer shall, at a minimum, consist of two feet of clay soil compacted to a minimum ninety percent standard proctor density (ASTM D-698)(Copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. This document is available for public viewing at the New Mexico state records center and archives and may not be reproduced, in full or in part. A copy of this publication may be obtained from ASTM International, [www.astm.org](http://www.astm.org).) with a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less. In areas where no ground water is present, the operator may propose an alternative base layer design, subject to division approval.

(2) The lower geomembrane liner shall consist of a 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner approved by the division.

(3) The operator shall place the leak detection system, which shall consist of two feet of compacted soil with a saturated hydraulic conductivity of  $1 \times 10^{-5}$  cm/sec or greater, between the lower and upper geomembrane liners. The leak detection system shall consist of a drainage and collection system placed no more than six inches above the lower geomembrane liner in depressions and sloped so as to facilitate the earliest possible leak detection at designated collection points. Drainage piping shall be designed to withstand chemical attack from oil field waste and leachate and structural loading and other stresses and disturbances from overlying oil field waste, cover materials, equipment operation, expansion or contraction, and to facilitate clean-out maintenance. The material placed between the pipes and laterals shall be sufficiently permeable to allow the transport of fluids to the drainage pipe. The slope of the landfill sub-grade and drainage pipes and laterals shall be at least two percent grade; *i.e.*, two feet of vertical drop per 100 horizontal feet. The piping collection network shall be comprised of solid and perforated pipe having a minimum diameter of four inches and a minimum wall thickness of schedule 80. The operator shall seal a solid drainage pipe to convey collected liquids to a corrosion-proof sump or sumps located outside the landfill's perimeter for observation, storage, treatment or disposal. The operator may install alternative designs as approved by the division.

(4) The operator shall place the upper geomembrane liner, which shall consist of a 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner approved by the division, over the leak detection system.

(5) The operator shall place the leachate collection and removal system, which shall consist of at least two feet of compacted soil with a saturated hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or greater, over the upper geomembrane liner to facilitate drainage. The leachate collection and removal system shall consist of a drainage and collection and removal system placed no more than six inches above the upper geomembrane liner in depressions and sloped so as to facilitate the maximum leachate collection. Piping shall be designed to withstand chemical attack from oil field waste or leachate and structural loading and other stresses and disturbances from overlying oil field waste, cover materials, equipment operation, expansion or contraction and to facilitate clean-out maintenance. The material placed between the pipes and laterals shall be sufficiently permeable to allow the transport of fluids to the drainage pipe. The slope of the upper geomembrane liner and drainage lines and laterals shall be at least two percent grade; *i.e.*, two feet of vertical drop per 100 horizontal feet. The piping collection network shall be comprised of solid and perforated pipe having a minimum diameter of four inches and a minimum wall thickness of schedule 80. The operator shall seal a solid drainage pipe to convey collected fluids outside the landfill's perimeter for storage, treatment and disposal. The operator may install alternative designs as approved by the division.

(6) The operator shall place the leachate collection and removal system protection layer, which shall consist of a soil layer at least one foot thick with a saturated hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or greater, over the leachate collection and removal system.

(7) The operator shall place oil field waste over the leachate collection and removal system protective layer.

(8) The top landfill cover design shall consist of the following layers (top to bottom): a soil erosion layer composed of at least 12 inches of fertile topsoil re-vegetated in accordance with the post closure provisions of Subparagraph (b) of Paragraph (2) of Subsection C of 19.15.36.18 NMAC; a protection or frost protection layer composed of 12 to 30 inches of native soil; a drainage layer composed of at least 12 inches of sand or gravel with a saturated hydraulic conductivity of  $1 \times 10^{-2}$  cm/sec or greater and a minimum bottom slope of four percent, a hydraulic barrier-layer-geomembrane (minimum of a 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner approved by the division); and a gas vent or foundation layer composed of at least 12 inches of sand or gravel above oil field waste with soils compacted to the minimum eighty percent Standard Proctor Density. The operator shall install the top landfill cover within one year of achieving the final landfill cell waste elevation. The operator shall ensure that the final landfill design elevation of the working face of the oil field waste is achieved in a timely manner with the date recorded in a field construction log. The operator shall also record the date of top landfill cover installation to document the timely installation of top landfill covers. The operator shall provide a minimum of three working days' notice to the division in advance of the top landfill cover's installation to allow the division to witness the top landfill cover's installation.

(9) Alternatively, the operator may propose a performance-based landfill design system using geosynthetics or geocomposites, including geogrids, geonets, geosynthetic clay liners, composite liner systems, etc., when supported by EPA's "hydrologic evaluation of landfill performance" (HELP) model or other division-approved model. The operator shall design the landfill to prevent the "bathtub effect". The bathtub effect occurs when a more permeable cover is placed over a less permeable bottom liner or natural subsoil.

(10) External piping, *e.g.*, leachate collection, leak detection and sump removal systems shall be designed for installation of a sidewall riser pipe. Pipes shall not penetrate the liner with the exception of gas vent or collection wells where the operator shall install a flexible clamped pipe riser through the top landfill cover liner that will accommodate oil field waste settling and will prevent tears.

**D. Liner specifications and requirements.**

**(1) General requirements.**

**(a)** Geomembrane liner specifications. Geomembrane liners shall consist of a 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner approved by the division. Geomembrane liners shall have a hydraulic conductivity no greater than  $1 \times 10^{-9}$  cm/sec. Geomembrane liners shall be composed of impervious, geosynthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. Liners shall also be resistant to ultraviolet light, or the operator shall make provisions to protect the material from sunlight. Liner compatibility shall comply with EPA SW-846 method 9090A.

**(b)** Liners shall be able to withstand projected loading stresses, settling and disturbances from overlying oil field waste, cover materials and equipment operations.

**(c)** The operator shall construct liners with a minimum of two percent slope to promote positive drainage and to facilitate leachate collection and leak detection.

**(2) Additional requirements for geomembranes.**

**(a)** Geomembranes shall be compatible with the oil field waste to be disposed. Geomembranes shall be resistant to chemical attack from the oil field waste or leachate. The operator shall demonstrate this by means of the manufacturer's test reports, laboratory analyses or other division-approved method.

**(b)** Geosynthetic material the operator installs on a slope greater than twenty-five percent shall be designed to withstand the calculated tensile forces acting upon the material. The design shall consider the maximum friction angle of the geosynthetic with regard to a soil-geosynthetic or geosynthetic-geosynthetic interface and shall ensure that overall slope stability is maintained.

**(c)** The operator shall thermally seal (hot wedge) field seams in geosynthetic material with a double track weld to create an air pocket for non-destructive air channel testing. In areas where double-track welding cannot be achieved, the operator may propose alternative thermal seaming methods. A stabilized air pressure of 35psi, plus or minus one percent, shall be maintained for at least five minutes. The operator shall overlap liners four to six inches before seaming, and shall orient seams parallel to the line of maximum slope; *i.e.*, oriented along, not across, the slope. The operator shall minimize the number of field seams in

corners and irregularly shaped areas. The operator shall use factory seams whenever possible. The operator shall not install horizontal seams within five feet of the slope's toe. Qualified personnel shall perform all field seaming.

**E.** Requirements for the soil component of composite liners.

(1) The operator shall place and compact the base layer to ninety percent standard proctor density on a prepared sub-grade.

(2) The soil surface upon which the operator installs a geosynthetic shall be free of stones greater than one half inch in any dimension, organic matter, local irregularities, protrusions, loose soil and abrupt changes in grade that could damage the geosynthetic.

(3) The operator shall compact a clay soil component of a composite liner to a minimum of ninety percent standard proctor density, which shall have, unless otherwise approved by the division, a plasticity index greater than ten percent, a liquid limit between twenty-five and fifty percent, a portion of material passing the no. 200 sieve (0.074 mm and less fraction) greater than forty percent by weight; and a clay content greater than eighteen percent by weight.

**F.** The leachate collection and removal system protective layer and the soil component of the leak detection system shall consist of soil materials that shall be free of organic matter, shall have a portion of material passing the no. 200 sieve no greater than five percent by weight and shall have a uniformity coefficient (Cu) less than 6, where Cu is defined as D60/D10. Geosynthetic materials or geocomposites including geonets and geotextiles, if used as components of the leachate collection and removal or leak detection system, shall have a hydraulic conductivity, transmissivity and chemical and physical qualities that oil field waste placement, equipment operation or leachate generation will not adversely affect. These geosynthetics or geocomposites, if used in conjunction with the soil protective cover for liners, shall have a hydraulic conductivity designed to ensure that the liner's hydraulic head never exceeds one foot.

**G.** Landfill gas control systems. If the gas safety management plan or requirements of other federal, state or local agencies require the installation of a gas control system at a landfill, the operator shall submit a plan for division approval, which shall include the following:

(1) the system's design, indicating the location and design of vents, barriers, collection piping and manifolds and other control measures that the operator will install (gas vent or collection wells shall incorporate a clamped and seamed pipe riser design through the top cover liner);

(2) if gas recovery is proposed, the design of the proposed gas recovery system and the system's major on-site components, including storage, transportation, processing, treatment or disposal measures required in the management of generated gases, condensates or other residues;

(3) if gas processing is proposed, a processing plan designed in a manner that does not interfere or conflict with the activities on the site or required control measures or create or cause danger to persons or property;

(4) if gas disposal is proposed, a disposal plan designed:

(a) in a manner that does not interfere or conflict with the activities on the site or with required control measures;

(b) so as not to create or cause danger to persons or property; and

(c) with active forced ventilation, using vents located at least one foot above the landfill surface at each gas vent's location;

(5) physical and chemical characterization of condensates or residues that are generated and a plan for their disposal;

(6) means that the operator will implement to prevent gas' generation and lateral migration such that:

(a) the concentration of the gases the landfill generates does not exceed twenty-five percent of the lower explosive limit for gases in surface waste management facility structures (excluding gas control or recovery system components); and

(b) the concentration of gases does not exceed the lower explosive limit for gases at the surface waste management facility boundary; and

(7) a routine gas monitoring program providing for monitoring at least quarterly; the specific type and frequency of monitoring to be determined based on the following:

(a) soil conditions;

(b) the hydrogeologic and hydraulic conditions surrounding the surface waste management facility; and

(c) the location of surface waste management facility structures and property lines.

**H.** Landfill gas response. If gas levels exceed the limits specified in Paragraph (6) of Subsection G of 19.15.36.14 NMAC, the operator shall:

- (1) immediately take all necessary steps to ensure protection of fresh water, public health and the environment and notify the division;
- (2) within seven days of detection, record gas levels detected and a description of the steps taken to protect fresh water, public health and the environment;
- (3) within 30 days of detection, submit a remediation plan for gas releases that describes the problem's nature and extent and the proposed remedy; and
- (4) within 60 days after division approval, implement the remediation plan and notify the division that the plan has been implemented.

[19.15.36.14 NMAC - N, 2/14/2007; A, 12/1/08; A, 6/30/16]

**19.15.36.15 SPECIFIC REQUIREMENTS APPLICABLE TO LANDFARMS:**

**A.** Oil field waste acceptance criteria. Only soils and drill cuttings predominantly contaminated by petroleum hydrocarbons shall be placed in a landfarm. The division may approve placement of tank bottoms in a landfarm if the operator demonstrates that the tank bottoms do not contain economically recoverable petroleum hydrocarbons. Soils and drill cuttings placed in a landfarm shall be sufficiently free of liquid content to pass the paint filter test, and shall not have a chloride concentration exceeding 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or exceeding 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. The person tendering oil field waste for treatment at a landfarm shall certify, on form C-138, that representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content, and that the samples have been found to conform to these requirements. The landfarm's operator shall not accept oil field waste for landfarm treatment unless accompanied by this certification.

**B.** Background testing. Prior to beginning operation of a new landfarm or to opening a new cell at an existing landfarm at which the operator has not already established background, the operator shall take, at a minimum, 12 composite background soil samples, with each consisting of 16 discrete samples from areas that previous operations have not impacted at least six inches below the original ground surface, to establish background soil concentrations for the entire surface waste management facility. The operator shall analyze the background soil samples for TPH, as determined by EPA method 418.1 or other EPA method approved by the division; BTEX, as determined by EPA SW-846 method 8021B or 8260B; chlorides; and other constituents listed in Subsections A and B of 20.6.2.3103 NMAC, using approved EPA methods.

**C.** Operation and oil field waste treatment.

- (1) The operator shall berm each landfarm cell to prevent rainwater run-on and run-off.
- (2) The operator shall not place contaminated soils received after the effective date of 19.15.36 NMAC within 100 feet of the surface waste management facility's boundary.
- (3) The operator shall not place contaminated soils received at a landfarm after the effective date of 19.15.36 NMAC within 20 feet of a pipeline crossing the landfarm.
- (4) Within 72 hours after receipt, the operator shall spread and disk contaminated soils in eight-inch or less lifts or approximately 1000 cubic yards per acre per eight-inch lift or biopile.
- (5) The operator shall ensure that soils are disked biweekly and biopiles are turned at least monthly.
- (6) The operator shall add moisture, as necessary, to enhance bioremediation and to control blowing dust.
- (7) The application of microbes for the purposes of enhancing bioremediation requires prior division approval.
- (8) Pooling of liquids in the landfarm is prohibited. The operator shall remove freestanding water within 24 hours.
- (9) The operator shall maintain records of the landfarm's remediation activities in a form readily accessible for division inspection.
- (10) The division's environmental bureau may approve other treatment procedures if the operator demonstrates that they provide equivalent protection for fresh water, public health and the environment.

**D.** Treatment zone monitoring. The operator shall spread contaminated soils on the surface in eight-inch or less lifts or approximately 1000 cubic yards per acre per eight-inch lift. The operator shall conduct treatment zone monitoring to ensure that prior to adding an additional lift the TPH concentration of each lift, as determined by

EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, does not exceed 2500 mg/kg and that the chloride concentration, as determined by EPA method 300.1, does not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste. The operator shall collect and analyze at least one composite soil sample, consisting of four discrete samples, from the treatment zone at least semi-annually using the methods specified below for TPH and chlorides. The maximum thickness of treated soils in a landfarm cell shall not exceed two feet or approximately 3000 cubic yards per acre. When that thickness is reached, the operator shall not place additional oil field waste in the landfarm cell until it has demonstrated by monitoring the treatment zone at least semi-annually that the contaminated soil has been treated to the standards specified in Subsection F of 19.15.36.15 NMAC or the contaminated soils have been removed to a division-approved surface waste management facility.

**E. Vadose zone monitoring.**

(1) Sampling. The operator shall monitor the vadose zone beneath the treatment zone in each landfarm cell. The operator shall take the vadose zone samples from soils between three and four feet below the cell's original ground surface.

(2) Semi-annual monitoring program. The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone at least semi-annually using the methods specified below for TPH, BTEX and chlorides and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred.

(3) Five year monitoring program. The operator shall collect and analyze a minimum of four randomly selected, independent samples from the vadose zone, using the methods specified below for the constituents listed in Subsections A and B of 20.6.2.3103 NMAC at least every five years and shall compare each result to the higher of the PQL or the background soil concentrations to determine whether a release has occurred.

(4) Record keeping. The operator shall maintain a copy of the monitoring reports in a form readily accessible for division inspection.

(5) Release response. If vadose zone sampling results show that the concentrations of TPH, BTEX or chlorides exceed the higher of the PQL or the background soil concentrations, then the operator shall notify the division's environmental bureau of the exceedance, and shall immediately collect and analyze a minimum of four randomly selected, independent samples for TPH, BTEX, chlorides and the constituents listed in Subsections A and B of 20.6.2.3103 NMAC. The operator shall submit the results of the re-sampling event and a response action plan for the division's approval within 45 days of the initial notification. The response action plan shall address changes in the landfarm's operation to prevent further contamination and, if necessary, a plan for remediating existing contamination.

**F. Treatment zone closure performance standards.** After the operator has filled a landfarm cell to the maximum thickness of two feet or approximately 3000 cubic yards per acre, the operator shall continue treatment until the contaminated soil has been remediated to the higher of the background concentrations or the following closure performance standards. The operator shall demonstrate compliance with the closure performance standards by collecting and analyzing a minimum of one composite soil sample, consisting of four discrete samples.

(1) Benzene, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 0.2 mg/kg.

(2) Total BTEX, as determined by EPA SW-846 method 8021B or 8260B, shall not exceed 50 mg/kg.

(3) The GRO and DRO combined fractions, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA method 418.1 or other EPA method approved by the division, shall not exceed 2500 mg/kg.

(4) Chlorides, as determined by EPA method 300.1, shall not exceed 500 mg/kg if the landfarm is located where ground water is less than 100 feet but at least 50 feet below the lowest elevation at which the operator will place oil field waste or 1000 mg/kg if the landfarm is located where ground water is 100 feet or more below the lowest elevation at which the operator will place oil field waste.

(5) The concentration of constituents listed in Subsections A and B of 20.6.2.3103 NMAC shall be determined by EPA SW-846 methods 6010B or 6020 or other methods approved by the division. If the concentration of those constituents exceed the PQL or background concentration, the operator shall either perform a site specific risk assessment using EPA approved methods and shall propose closure standards based upon individual site conditions that protect fresh water, public health and the environment, which shall be subject to division approval or remove pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC.



**G.** Disposition of treated soils.

(1) If the operator achieves the closure performance standards specified in Subsection F of 19.15.36.15 NMAC, then the operator may either leave the treated soils in place, or, with prior division approval, dispose or reuse of the treated soils in an alternative manner.

(2) If the operator cannot achieve the closure performance standards specified in Subsection F of 19.15.36.15 NMAC within five years or as extended by the division, then the operator shall remove contaminated soils from the landfarm cell and properly dispose of it at a division-permitted landfill, or reuse or recycle it in a manner approved by the division.

(3) If the operator cannot achieve the closure performance standards specified in Subsection F of 19.15.36.15 NMAC within five years or as extended by the division, then the division may review the adequacy of the operator's financial assurance, as provided in Subsection G of 19.15.36.11 NMAC. In that event, the division may require the operator to modify its financial assurance to provide for the appropriate disposition of contaminated soil in a manner acceptable to the division.

(4) The operator may request approval of an alternative soil closure standard from the division, provided that the operator shall give division-approved public notice of an application for alternative soil closure standards in the manner provided in 19.15.36.9 NMAC. The division may grant the request administratively if no person files an objection thereto within 30 days after publication of notice; otherwise the division shall set the matter for hearing.

**H.** Environmentally acceptable bioremediation endpoint approach.

(1) A landfarm operator may use an environmentally acceptable bioremediation endpoint approach to landfarm management in lieu of compliance with the requirements of Paragraph (3) of Subsection F of 19.15.36.15 NMAC. The bioremediation endpoint occurs when TPH, as determined by EPA method 418.1 or other EPA method approved by the division, is reduced to a minimal concentration as a result of bioremediation and is dependent upon the bioavailability of residual hydrocarbons. An environmentally acceptable bioremediation endpoint occurs when the TPH concentration has been reduced by at least eighty percent by a combination of physical, biological and chemical processes and the rate of change in the reduction in the TPH concentration is negligible. The environmentally acceptable bioremediation endpoint in soil is determined statistically by the operator's demonstration that the rate of change in the reduction of TPH concentration is negligible.

(2) In addition to the requirements specified in Subsection C of 19.15.36.8 NMAC, an operator who plans to use an environmentally acceptable bioremediation endpoint approach shall submit for the division's review and approval a detailed landfarm operation plan for those landfarm cells exclusively dedicated to the use of the environmentally acceptable bioremediation endpoint approach. At a minimum, the operations plan shall include detailed information on the native soils, procedures to characterize each lift of contaminated soil, operating procedures and management procedures that the operator shall follow.

(3) In addition to other operational requirements specified in 19.15.36.15 NMAC, the operator using an environmentally acceptable bioremediation endpoint approach shall comply with the following.

(a) Native soil information required. The operator shall submit detailed information on the soil conditions present for each of its landfarm cells immediately prior to the application of the petroleum hydrocarbon-contaminated soils, including: treatment cell size, soil porosity, soil bulk density, soil pH, moisture content, field capacity, organic matter concentration, soil structure, SAR, EC, soil composition, soil temperature, soil nutrient (C:N:P) (calcium, nitrogen and phosphate) concentrations and oxygen content.

(b) Characterization of contaminated soil. The operator shall submit a description of the procedures that it will follow to characterize each lift of contaminated soil or drill cuttings, prior to treating each lift of contaminated soil or drill cuttings, for petroleum hydrocarbon loading factor, TPH, BTEX, chlorides, constituents listed in Subsections A and B of 20.6.2.3103 NMAC, contaminated soil moisture, contaminated soil pH and API gravity of the petroleum hydrocarbons.

(c) Operating procedures. The operator shall submit a description of the procedures, including a schedule, that it shall follow to properly monitor and amend each lift of contaminated soil in order to maximize bioremediation, including tilling procedures and schedule; procedures to limit petroleum hydrocarbon loading to less than five percent; procedures to maintain pH between six and eight; procedures to monitor and apply proper nutrients; procedures to monitor, apply and maintain moisture to sixty to eighty percent of field capacity; and procedures to monitor TPH concentrations.

(d) Management procedures. The operator shall submit a description of the management procedures that it shall follow to properly schedule landfarming operations, including modifications during cold weather, record keeping, sampling and analysis, statistical procedures, routine reporting, determination

and reporting of achievement of the environmentally acceptable bioremediation endpoint and closure and post-closure plans.

[19.15.36.15 NMAC - N, 2/14/2007; A, 12/1/08; A, 6/30/16]

**19.15.36.16 SMALL LANDFARMS:** Small landfarms as defined in Paragraph (5) of Subsection A of 19.15.36.7 NMAC are exempt from 19.15.36 NMAC except for the requirements specified in 19.15.36.16 NMAC.

**A. General requirements.**

(1) **Registration.** Prior to establishment of a new small landfarm, the operator shall file a form C-137 EZ, small landfarm registration, with the environmental bureau in the division's Santa Fe office. If the operator is not the surface estate owner at the proposed site, the operator shall furnish with its form C-137 EZ its certification it has a written agreement with the surface estate owner authorizing the site's use for the proposed small landfarm. The division shall issue the operator a registration number no more than 30 days from receipt of the properly completed form.

(2) **Limitation.** The operator shall operate only one active small landfarm per governmental section at any time. No small landfarm shall be located more than one mile from the operator's nearest oil or gas well or other production facility.

**B. General operating procedures. The operator shall:**

(1) comply with the siting requirements of Subsections A and B of 19.15.36.13 NMAC;

(2) accept only exempt or non-hazardous wastes consisting of soils (excluding drill cuttings) generated as a result of accidental releases from production operations, that are predominantly contaminated by petroleum hydrocarbons, do not contain free liquids, would pass the paint filter test and where testing shows chloride concentrations are 500 mg/kg or below;

(3) berm the landfarm to prevent rainwater run-on and run-off; and

(4) post a sign at the site readable from a distance of 50 feet and listing the operator's name; small landfarm registration number; location by unit letter, section, township and range; expiration date; and an emergency contact telephone number.

**C. Oil field waste management standards.** The operator shall spread and disk contaminated soils in a single eight inch or less lift within 72 hours of receipt. The operator shall conduct treatment zone monitoring to ensure that the TPH concentration, as determined by EPA SW-846 method 8015M or EPA method 418.1 or other EPA method approved by the division, does not exceed 2500 mg/kg and that the chloride concentration, as determined by EPA method 300.1, does not exceed 500 mg/kg. The operator shall treat soils by disking at least once a month and by watering and adding bioremediation enhancing materials when needed.

**D. Record-keeping requirements.** The operator shall maintain records reflecting the generator, the location of origin, the volume and type of oil field waste, the date of acceptance and the hauling company for each load of oil field waste received. The division shall post on its website each small landfarm's location, operator and registration date. In addition, the operator shall maintain records of the small landfarm's remediation activities in a form readily accessible for division inspection. The operator shall maintain all records for five years following the small landfarm's closure.

**E. Small landfarm closure.**

(1) **Closure performance standards and disposition of soils.** If the operator achieves the closure performance standards specified below, then the operator may return the soil to the original generation site, leave the treated soil in place at the small landfarm or, with prior division approval, dispose or reuse the treated soil in an alternative manner. If the operator cannot achieve the closure performance standards within three years from the registration date, then the operator shall remove contaminated soil from the landfarm and properly dispose of it at a permitted landfill, unless the division authorizes a specific alternative disposition. The following standards shall apply:

(a) benzene, as determined by EPA SW-846 method 8021 B or 8260B, shall not exceed 0.2 mg/kg;

(b) Total BTEX, as determined by EPA SW-846 method 8021 B or 8260B, shall not exceed 50 mg/kg;

(c) TPH, as determined by EPA SW-846 method 418.1 or other EPA method approved by the division, shall not exceed 2500 mg/kg; the GRO and DRO combined fraction, as determined by EPA SW-846 method 8015M, shall not exceed 500 mg/kg; and

(d) chlorides, as determined by EPA method 300.1, shall not exceed 500 mg/kg.

(2) **Closure requirements.** The operator shall:

- (a) re-vegetate soils remediated to the closure performance standards if left in place in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC;
- (b) remove landfarmed soils that have not or cannot be remediated to the closure performance standards within three years to a division-approved surface waste management facility, and re-vegetate the cell filled in with native soil to the standards in Paragraph (6) of Subsection A of 19.15.36.18 NMAC;
- (c) if the operator returns remediated soils to the original site, or with division permission, recycles them, re-vegetate the cell filled in with native soil to the standards in Paragraph (6) of Subsection A of 19.15.36.18 NMAC;
- (d) remove berms on the small landfarm and buildings, fences, roads and equipment; and
- (e) clean up the site and collect one vadose zone soil sample from three to five feet below the middle of the treatment zone, or in an area where liquids may have collected due to rainfall events; the vadose zone soil sample shall be collected and analyzed using the methods specified above for TPH, BTEX and chlorides.

**F.** Final report. The operator shall submit a final closure report on a form C-137 EZ, together with photographs of the closed site, to the environmental bureau in the division's Santa Fe office. The division, after notice to the operator and an opportunity for a hearing if requested, may require additional information, investigation or clean up activities.

[19.15.36.16 NMAC - N, 2/14/2007; A, 12/1/08]

#### **19.15.36.17 SPECIFIC REQUIREMENTS APPLICABLE TO EVAPORATION, STORAGE, TREATMENT AND SKIMMER PONDS:**

**A.** Engineering design plan. An applicant for a surface waste management facility permit or modification requesting inclusion of a skimmer pit; an evaporation, storage or treatment pond; or a below-grade tank shall submit with the surface waste management facility permit application a detailed engineering design plan, certified by a registered profession engineer, including operating and maintenance procedures; a closure plan; and a hydrologic report that provides sufficient information and detail on the site's topography, soils, geology, surface hydrology and ground water hydrology to enable the division to evaluate the actual and potential effects on soils, surface water and ground water. The plan shall include detailed information on dike protection and structural integrity; leak detection, including an adequate fluid collection and removal system; liner specifications and compatibility; freeboard and overtopping prevention; prevention of nuisance and hazardous odors such as H<sub>2</sub>S; an emergency response plan, unless the pit is part of a surface waste management facility that has an integrated contingency plan; type of oil field waste stream, including chemical analysis; climatological factors, including freeze-thaw cycles; a monitoring and inspection plan; erosion control; and other pertinent information the division requests.

**B.** Construction, standards.

(1) In general. The operator shall ensure each pit, pond and below-grade tank is designed, constructed and operated so as to contain liquids and solids in a manner that will protect fresh water, public health and the environment.

(2) Liners required. Each pit or pond shall contain, at a minimum, a primary (upper) liner and a secondary (lower) liner with a leak detection system appropriate to the site's conditions.

(3) Liner specifications. Liners shall consist of a 30-mil flexible PVC or 60-mil HDPE liner, or an equivalent liner approved by the division. Synthetic (geomembrane) liners shall have a hydraulic conductivity no greater than  $1 \times 10^{-9}$  cm/sec. Geomembrane liners shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salts and acidic and alkaline solutions. Liner materials shall be resistant to ultraviolet light, or the operator shall make provisions to protect the material from sunlight. Liner compatibility shall comply with EPA SW-846 method 9090A.

(4) Alternative liner media. The division may approve other liner media if the operator demonstrates to the division's satisfaction that the alternative liner protects fresh water, public health and the environment as effectively as the specified media.

(5) Each pit or pond shall have a properly constructed foundation or firm, unyielding base, smooth and free of rocks, debris, sharp edges or irregularities, in order to prevent rupture or tear of the liner and an adequate anchor trench; and shall be constructed so that the inside grade of the levee is no steeper than 2H:1V. Levees shall have an outside grade no steeper than 3H:1V. The levees' tops shall be wide enough to install an anchor trench and provide adequate room for inspection and maintenance. The operator shall minimize liner seams and orient them up and down, not across a slope. The operator shall use factory seams where possible. The operator

shall ensure field seams in geosynthetic material are thermally seamed (hot wedge) with a double track weld to create an air pocket for non-destructive air channel testing. A stabilized air pressure of 35 psi, plus or minus one percent, shall be maintained for at least five minutes. The operator shall overlap liners four to six inches before seaming, and orient seams parallel to the line of maximum slope, i.e., oriented along, not across, the slope. The operator shall minimize the number of field seams in corners and irregularly shaped areas. There shall be no horizontal seams within five feet of the slope's toe. Qualified personnel shall perform field seaming.

(6) At a point of discharge into or suction from the lined pit, the liner shall be protected from excessive hydrostatic force or mechanical damage, and external discharge lines shall not penetrate the liner.

(7) Primary liners shall be constructed of a synthetic material.

(8) A secondary liner may be a synthetic liner or an alternative liner approved by the division. Secondary liners constructed with compacted soil membranes, i.e., natural or processed clay and other soils, shall be at least three feet thick, placed in six-inch lifts and compacted to ninety-five percent of the material's standard proctor density, or equivalent. Compacted soil membranes used in a liner shall undergo permeability testing in conformity with ASTM standards and methods approved by the division before and after construction. Compacted soil membranes shall have a hydraulic conductivity of no greater than  $1 \times 10^{-8}$  cm/sec. The operator shall submit results of pre-construction testing to the division for approval prior to construction.

(9) The operator shall place a leak detection system between the lower and upper geomembrane liners that consists of two feet of compacted soil with a saturated hydraulic conductivity of  $1 \times 10^{-5}$  cm/sec or greater to facilitate drainage. The leak detection system shall consist of a properly designed drainage and collection and removal system placed above the lower geomembrane liner in depressions and sloped so as to facilitate the earliest possible leak detection. Piping used shall be designed to withstand chemical attack from oil field waste or leachate; structural loading from stresses and disturbances from overlying oil field waste, cover materials, equipment operation or expansion or contraction; and to facilitate clean-out maintenance. The material placed between the pipes and laterals shall be sufficiently permeable to allow the transport of fluids to the drainage pipe. The slope of the interior sub-grade and of drainage lines and laterals shall be at least a two percent grade, i.e., two feet vertical drop per 100 horizontal feet. The piping collection system shall be comprised of solid and perforated pipe having a minimum diameter of four inches and a minimum wall thickness of schedule 80. The operator shall seal a solid sidewall riser pipe to convey collected fluids to a collection, observation and disposal system located outside the perimeter of the pit or pond. The operator may install alternative methods as approved by the division.

(10) The operator shall notify the division at least 72 hours prior to the primary liner's installation so that a division representative may inspect the leak detection system before it is covered.

(11) The operator shall construct pits and ponds in a manner that prevents overtopping due to wave action or rainfall, and maintain a three foot freeboard at all times.

(12) The maximum size of an evaporation or storage pond shall not exceed 10 acre-feet.

**C. Operating standards.**

(1) The operator shall ensure that only produced fluids or non-hazardous waste are discharged into or stored in a pit or pond; and that no measurable or visible oil layer is allowed to accumulate or remain anywhere on a pit's surface except an approved skimmer pit.

(2) The operator shall monitor leak detection systems pursuant to the approved surface waste management facility permit conditions, maintain monitoring records in a form readily accessible for division inspection and report discovery of liquids in the leak detection system to the division within 24 hours.

(3) Fencing and netting. The operator shall fence or enclose pits or ponds to prevent unauthorized access and maintain fences in good repair. Fences are not required if there is an adequate perimeter fence surrounding the surface waste management facility. The operator shall screen, net, cover or otherwise render non-hazardous to migratory birds tanks exceeding eight feet in diameter and exposed pits and ponds. Upon written application, the division may grant an exception to screening, netting or covering requirements upon the operator's showing that an alternative method will adequately protect migratory birds or that the tank or pit is not hazardous to migratory birds.

(4) The division may approve spray systems to enhance natural evaporation. The operator shall submit engineering designs for spray systems to the division's environmental bureau for approval prior to installation. The operator shall ensure that spray evaporation systems are operated so that spray-borne suspended or dissolved solids remain within the perimeter of the pond's lined portion.

(5) The operator shall use skimmer pits or tanks to separate oil from produced water prior to water discharge into a pond. The operator shall install a trap device in connected ponds to prevent solids and oils from transferring from one pond to another unless approved in the surface waste management facility permit.

**D. Below-grade tanks and sumps.**

(1) The operator shall construct below-grade tanks with secondary containment and leak detection. The operator shall not allow below-grade tanks to overflow. The operator shall install only below-grade tanks of materials resistant to the tank's particular contents and to damage from sunlight.

(2) The operator shall test sumps' integrity annually, and shall promptly repair or replace a sump that does not demonstrate integrity. The operator may test sumps that can be removed from their emplacements by visual inspection. The operator shall test other sumps by appropriate mechanical means. The operator shall maintain records of sump inspection and testing and make such records available for division inspection.

**E. Closure required.** The operator shall properly close pits, ponds and below-grade tanks within six months after cessation of use.

[19.15.36.17 NMAC - N, 2/14/2007; A, 6/30/16]

**19.15.36.18 CLOSURE AND POST CLOSURE:**

**A. Surface waste management facility closure by operator.**

(1) The operator shall notify the division's environmental bureau at least 60 days prior to cessation of operations at the surface waste management facility and provide a proposed schedule for closure. Upon receipt of such notice and proposed schedule, the division shall review the current closure and post closure plan (post closure is not required for oil treating plants) for adequacy and inspect the surface waste management facility.

(2) The division shall notify the operator within 60 days after the date of cessation of operations specified in the operator's closure notice of modifications of the closure and post closure plan and proposed schedule or additional requirements that it determines are necessary for the protection of fresh water, public health or the environment.

(3) If the division does not notify the operator of additional closure or post closure requirements within 60 days as provided, the operator may proceed with closure in accordance with the approved closure and post closure plan; provided that the director may, for good cause, extend the time for the division's response for an additional period not to exceed 60 days by written notice to the operator.

(4) The operator shall be entitled to a hearing concerning a modification or additional requirement the division seeks to impose if it files an application for a hearing within 10 days after receipt of written notice of the proposed modifications or additional requirements.

(5) Closure shall proceed in accordance with the approved closure and post closure plan and schedule and modifications or additional requirements the division imposes. During closure operations the operator shall maintain the surface waste management facility to protect fresh water, public health and the environment.

(6) Upon completion of closure, the operator shall re-vegetate the site unless the division has approved an alternative site use plan as provided in Subsection F of 19.15.36.18 NMAC. Re-vegetation, except for landfill cells, shall consist of establishment of a vegetative cover equal to seventy percent of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) or scientifically documented ecological description consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons.

**B. Release of financial assurance.**

(1) When the division determines that closure is complete it shall release the financial assurance, except for the amount needed to maintain monitoring wells for the applicable post closure care period, to perform semi-annual analyses of such monitoring wells and to re-vegetate the site. Prior to the partial release of the financial assurance covering the surface waste management facility, the division shall inspect the site to determine that closure is complete.

(2) After the applicable post closure care period has expired, the division shall release the remainder of the financial assurance if the monitoring wells show no contamination and the re-vegetation in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC is successful. If monitoring wells or other monitoring or leak detection systems reveal contamination during the surface waste management facility's operation or in the applicable post closure care period following the surface waste management facility's closure the division shall not release the financial assurance until the contamination is remediated in accordance with 19.15.30 NMAC and 19.15.29 NMAC, as applicable.

(3) In any event, the division shall not finally release the financial assurance until it determines that the operator has successfully re-vegetated the site in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC, or, if the division has approved an alternative site use plan, until the landowner has obtained the necessary regulatory approvals and begun implementation of the use.

**C.** Surface waste management facility and cell closure and post closure standards. The following minimum standards shall apply to closure and post closure of the installations indicated, whether the entire surface waste management facility is being closed or only a part of the surface waste management facility.

(1) Oil treating plant closure. The operator shall ensure that:

(a) tanks and equipment used for oil treatment are cleaned and oil field waste is disposed of at a division-approved surface waste management facility (the operator shall reuse, recycle or remove tanks and equipment from the site within 90 days of closure);

(b) the site is sampled, in accordance with the procedures specified in chapter nine of EPA publication SW-846, test methods for evaluating solid waste, physical/chemical methods, for TPH, BTEX, major cations and anions and RCRA metals, in accordance with a gridded plat of the site containing at least four equal sections that the division has approved; and

(c) sample results are submitted to the environmental bureau in the division's Santa Fe office.

(2) Landfill cell closure.

(a) The operator shall properly close landfill cells, covering the cell with a top cover pursuant to Paragraph (8) of Subsection C of 19.15.36.14 NMAC, with soil contoured to promote drainage of precipitation; side slopes shall not exceed a twenty-five percent grade (four feet horizontal to one foot vertical), such that the final cover of the landfill's top portion has a gradient of two percent to five percent, and the slopes are sufficient to prevent the ponding of water and erosion of the cover material.

(b) The operator shall re-vegetate the area overlying the cell with native grass covering at least seventy percent of the landfill cover and surrounding areas, consisting of at least two grasses and not including noxious weeds or deep rooted shrubs or trees, and maintain that cover through the post closure period.

(3) Landfill post closure. Following landfill closure, the post closure care period for a landfill shall be 30 years.

(a) A post closure care and monitoring plan shall include maintenance of cover integrity, maintenance and operation of a leak detection system and leachate collection and removal system and operation of gas and ground water monitoring systems.

(b) The operator or other responsible entity shall sample existing ground water monitoring wells annually and submit reports of monitoring performance and data collected within 45 days after the end of each calendar year. The operator shall report any exceedance of a ground water standard that it discovers during monitoring pursuant to 19.15.29 NMAC.

(4) Landfarm closure. The operator shall ensure that:

(a) disking and addition of bioremediation enhancing materials continues until soils within the cells are remediated to the standards provided in Subsection F of 19.15.36.15 NMAC, or as otherwise approved by the division;

(b) soils remediated to the foregoing standards and left in place are re-vegetated in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC;

(c) landfarmed soils that have not been or cannot be remediated to the standards in Subsection F of 19.15.36.15 NMAC are removed to a division-approved surface waste management facility and the landfarm remediation area is filled in with native soil and re-vegetated in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC;

(d) if treated soils are removed, the cell is filled in with native soils and re-vegetated in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC;

(e) berms are removed;

(f) buildings, fences, roads and equipment are removed, the site cleaned-up and tests conducted on the soils for contamination;

(g) annual reports of vadose zone and treatment zone sampling are submitted to the division's environmental bureau until the division has approved the surface waste management facility's final closure; and

(h) for an operator who chooses to use the landfarm methods specified in Subsection H of 19.15.36.15 NMAC, that the soil has an ECs of less than or equal to 4.0 mmhos/cm (dS/m) and a SAR of less than or equal to 13.0.

**D.** Pond and pit closure. The operator shall ensure that:

(1) liquids in the ponds or pits are removed and disposed of in a division-approved surface waste management facility;

(2) liners are disposed of in a division-approved surface waste management facility;

(3) equipment associated with the surface waste management facility is removed;

(4) the site is sampled, in accordance with the procedures specified in chapter nine of EPA publication SW-846, test methods for evaluating solid waste, physical/chemical methods for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.6.2.3103 NMAC, in accordance with a gridded plat of the site containing at least four equal sections that the division has approved; and

(5) sample results are submitted to the environmental bureau in the division's Santa Fe office.

**E.** Landfarm and pond and pit post closure. The post-closure care period for a landfarm or pond or pit shall be three years if the operator has achieved clean closure. During that period the operator or other responsible entity shall regularly inspect and maintain required re-vegetation. If there has been a release to the vadose zone or to ground water, then the operator shall comply with the applicable requirements of 19.15.30 NMAC and 19.15.29 NMAC.

**F.** Alternatives to re-vegetation. If the landowner contemplates use of the land where a cell or surface waste management facility is located for purposes inconsistent with re-vegetation, the landowner may, with division approval, implement an alternative surface treatment appropriate for the contemplated use, provided that the alternative treatment will effectively prevent erosion. If the division approves an alternative to re-vegetation, it shall not release the portion of the operator's financial assurance reserved for post-closure until the landowner has obtained necessary regulatory approvals and begun implementation of such alternative use.

**G.** Surface waste management facility closure initiated by the division. Forfeiture of financial assurance.

(1) For good cause, the division may, after notice to the operator and an opportunity for a hearing, order immediate cessation of a surface waste management facility's operation when it appears that cessation is necessary to protect fresh water, public health or the environment, or to assure compliance with statutes or division rules and orders. The division may order closure without first having a hearing in the event of an emergency, subject to Section 70-2-23 NMSA 1978, as amended.

(2) If the operator refuses or is unable to conduct operations at a surface waste management facility in a manner that protects fresh water, public health and the environment; refuses or is unable to conduct or complete an approved closure and post closure plan; is in material breach of the terms and conditions of its surface waste management facility permit; or the operator defaults on the conditions under which the division accepted the surface waste management facility's financial assurance; or if disposal operations have ceased and there has been no significant activity at the surface waste management facility for six months the division may take the following actions to forfeit all or part of the financial assurance:

(a) send written notice by certified mail, return receipt requested, to the operator and the surety, if any, informing them of the decision to close the surface waste management facility and to forfeit the financial assurance, including the reasons for the forfeiture and the amount to be forfeited, and notifying the operator and surety that a hearing request or other response shall be made within 20 days of receipt of the notice; and

(b) advise the operator and surety of the conditions under which they may avoid the forfeiture; such conditions may include but are not limited to an agreement by the operator or another party to perform closure and post closure operations in accordance with the surface waste management facility permit conditions, the closure and post closure plan (including modifications or additional requirements imposed by the division) and division rules, and satisfactory demonstration that the operator or other party has the ability to perform such agreement.

(3) The division may allow a surety to perform closure and post closure if the surety can demonstrate an ability to timely complete the closure and post closure in accordance with the approved plan.

(4) If the operator and the surety do not respond to a notice of proposed forfeiture within the time provided, or fail to satisfy the specified conditions for non-forfeiture, the division shall proceed, after hearing if the operator or surety has timely requested a hearing, to declare the financial assurance's forfeiture. The division may then proceed to collect the forfeited amount and use the funds to complete the closure and post closure, or, at the division's election, to close the surface waste management facility and collect the forfeited amount as reimbursement.

(a) The division shall deposit amounts collected as a result of forfeiture of financial assurance in the oil and gas reclamation fund.

(b) In the event the amount forfeited and collected is insufficient for closure and post closure, the operator shall be liable for the deficiency. The division may complete or authorize completion of closure and post closure and may recover from the operator reasonably incurred costs of closure and post closure and forfeiture in excess of the amount collected pursuant to the forfeiture.

(c) In the event the amount collected pursuant to the forfeiture was more than the amount necessary to complete closure and post closure, including remediation costs, and forfeiture costs, the division shall return the excess to the operator or surety, as applicable, reserving such amount as may be reasonably necessary for post closure operations and re-vegetation in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC. The division shall return excess of the amount retained over the actual cost of post closure operations and re-vegetation to the operator or surety at the later of the conclusion of the applicable post closure period or when the site re-vegetation in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC is successful.

(5) If the operator abandons the surface waste management facility or cannot fulfill the conditions and obligations of the surface waste management facility permit or division rules, after notice and an opportunity for hearing, the state of New Mexico, its agencies, officers, employees, agents, contractors and other entities designated by the state shall have all rights of entry into, over and upon the surface waste management facility property, including all necessary and convenient rights of ingress and egress with all materials and equipment to conduct operation, termination and closure of the surface waste management facility, including but not limited to the temporary storage of equipment and materials, the right to borrow or dispose of materials and all other rights necessary for the surface waste management facility's operation, termination and closure in accordance with the surface waste management facility permit and to conduct post closure operations.  
[19.15.36.18 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 12/1/08; A, 6/30/16]

#### **19.15.36.19 EXCEPTIONS AND WAIVERS:**

A. In a surface waste management facility permit application, the applicant may propose alternatives to requirements of 19.15.36 NMAC, and the division may approve such alternatives if it determines that the proposed alternatives will provide equivalent protection of fresh water, public health and the environment.

B. The division may grant exceptions to, or waivers of, or approve alternatives to requirements of 19.15.36 NMAC in an emergency without notice or hearing. The operator requesting an exception or waiver, except in an emergency, shall apply for a surface waste management facility permit modification in accordance with Subsection C of 19.15.36.8 NMAC. If the requested modification is a major modification, the operator shall provide notice of the request in accordance with 19.15.36.9 NMAC.  
[19.15.36.19 NMAC - N, 2/14/2007; A, 6/30/16]

**19.15.36.20 TRANSITIONAL PROVISIONS:** Existing permitted facilities. Surface waste management facilities in operation prior to the effective date of 19.15.36 NMAC pursuant to division permits or orders may continue to operate in accordance with such permits or orders, subject to the following provisions.

A. Existing surface waste management facilities shall comply with the financial assurance, operational, monitoring, waste acceptance and closure and post closure requirements provided in 19.15.36 NMAC, except as otherwise specifically provided in the applicable permit or order, or in a specific waiver, exception or agreement that the division has granted in writing to the particular surface waste management facility.

B. The division shall not require financial assurance for a commercial facility permitted prior to the effective date of 19.15.36 NMAC that exceeds \$250,000 until such time as:

(1) the division reviews the commercial facility's permit pursuant to Paragraph (3) of Subsection A of 19.15.36.12 NMAC, at which time the division may require the operator to submit a closure and post closure plan; which shall include a responsible third party contractor's cost estimate to complete closure and post closure of the surface waste management facility pursuant to the requirements of Subsections A through F of 19.15.36.18 NMAC:

(a) if the division determines that such estimate does not reflect a reasonable and probable closure and post closure cost, the division shall determine the estimated closure and post closure cost and shall provide its determination of estimated closure and post closure cost to the operator;

(b) if the operator disagrees with the division's determination of estimated closure and post closure cost, the operator may request a hearing, which shall be conducted according to 19.15.4 NMAC; or

(2) the commercial facility applies for a major modification.

C. Major modification of an existing surface waste management facility and a new landfarm cells constructed at an existing surface waste management facility shall comply with the requirements provided in 19.15.36 NMAC.

[19.15.36.20 NMAC - Rp, 19.15.9.711 NMAC, 2/14/2007; A, 6/30/16]

#### **History of 19.15.36 NMAC:**



**Pre-NMAC History:**

Material in the part was derived from that previously filed with the commission of public records - state records center and archives:

Rule 711, Commercial Surface Waste Disposal Facilities, filed 6-6-88;

Rule 711, Commercial Surface Waste Disposal Facilities, filed 10-11-89;

Rule 711, Commercial Surface Waste Disposal Facilities, filed 2-5-91;

Rule 711, Applicable to Surface Waste Management Facilities Only, filed 7-27-95;

Rule 711, Applicable to Surface Waste Management Facilities Only, filed 12-18-95.

**History of Repealed Material:**

Repeal of Section 711 of 19.15.9 NMAC, 2/14/2007.

**Other History:**

Rule 711, Applicable to Surface Waste Management Facilities Only (filed 12-18-95) renumbered and reformatted into that portion of 19 NMAC 15.I, effective 02-01-1996.

19 NMAC 15.I, Secondary or Other Enhanced Recovery, Pressure Maintenance, Salt Water Disposal, and Underground Storage (filed 01-18-96) was renumbered, reformatted and amended **to** 19.15.9 NMAC, effective 11-30-2000.

Section 711 of 19.15.9 NMAC was renumbered to and replaced by 19.15.36 NMAC, Surface Waste Management Facilities, effective 2/14/2007.