

**TITLE 35. OKLAHOMA DEPARTMENT OF AGRICULTURE, FOOD, AND  
FORESTRY  
CHAPTER 17. WATER QUALITY**

**SUBCHAPTER 3. SWINE FEEDING OPERATIONS**

**35:17-3-6. License application for new facilities or expanding operations**

(a) In addition to the items required by the Oklahoma Swine Feeding Operations Act, the application for a swine feeding operation license of a new facility or an expanding operation shall contain, as a minimum, the following information:

- (1) Name and address of the owner of the facility.
- (2) Name and address of the swine feeding operation, including driving directions from the nearest municipality and legal description of the facility.
- (3) Name and address of the operator if other than the owner.
- (4) Capacity in swine animal units and number and type of swine housed or confined.
- (5) If owner is a firm, partnership, corporation, or other legal entity, the name and address of each member with an ownership interest of ten percent (10%) or more.
- (6) If owner is a corporation, the name and address of the corporation and the name and address of each officer and registered agent of the corporation.
- (7) Environmental history of the past three (3) years of any swine feeding operation or CAFO established or operated by the owner or any other operation with common ownership in Oklahoma or any other state, including all citations, administrative orders or penalties, civil injunctions or other civil actions, and criminal actions, past, current, and ongoing, taken by any person, agency, or court relating to noncompliance with any environmental law, rule, agency order, or court action in conjunction with the operation of a swine feeding operation.
- (8) List of all environmental awards or citations received or pollution prevention or voluntary remediation efforts undertaken by the owner.
- (9) Copy of deed, contract to purchase, or option to purchase the proposed site of the facility, waste retention structures, and land application sites. If land application sites are not owned by the applicant, provide a notarized signed copy of spreading or effluent agreement.
- (10) A map of all property owners within one (1) mile of the facility and waste retention structures and a corresponding mailing list. Applications for LMFOs with more than two thousand (2,000) swine animal units shall include a map of all property owners within two (2) miles of the facility and waste retention structures and a corresponding mailing list.
- (11) A plat showing:
  - (A) Location of the facility, waste retention structures, and all land application sites.
  - (B) Location and distance of all occupied residences within one (1) mile of the facility and waste retention structures. The distances shall be measured from the nearest point of the waste retention structure to the nearest point of the occupied residence. Applications for LMFOs with more than two thousand (2,000) swine animal units shall include the location and distance of all occupied residences within two (2) miles of the facility and waste retention structures.

- (C) Location and distance of all occupied residences within six-hundred (600) feet of any land application site. The distances shall be measured from the nearest point of the land application site to the nearest point of the occupied residence.
  - (D) Location and distance of all existing public or private drinking water wells within four-hundred (400) feet of any land application site. The distance shall be measured from the nearest point of the land application site to the nearest point of the drinking water well.
  - (E) All open roads surrounding the facility and all land application sites.
- (12) All LMFOs shall submit an affidavit certifying compliance with applicable setbacks found in Sections 20-19 and 20-21 of Title 2 of the Oklahoma Statutes.
- (13) If applicable, a copy of the written waiver by a property owner, municipality, or governing body releasing specified setback requirements as provided by the Act.
- (14) To assist the Department, applications for LMFOs shall include an introductory narrative summary describing the facility and operation. The description shall include the following general information:
- (A) Both narrative and legal location of the facility, including driving directions.
  - (B) The type of operation, including whether a BGF, nursery, finisher, or other type.
  - (C) The type and number of swine planned for the facility.
  - (D) The planned swine waste management system and structures.
  - (E) A general narrative description of planned swine growth and movement activities.
  - (F) Other general information the owner believes to be helpful to the Department in beginning review of the application.
- (15) Characterization of the physical and environmental setup of the facility, including but not limited to the following:
- (A) Description of topography using a current USGS 7.5 minute topographic map highlighting the location of waters of the state within three (3) miles of the facility, waste retention structures and all land application sites, an outline of the watershed drainage area, and arrows indicating general direction of surface water drainage from the facility, waste retention sites, and land application sites. Applications for LMFOs shall indicate all manmade terracing and other changes to the topography of the site.
  - (B) Soil map showing soil types at the facility, waste retention structure, and all land application sites. Applications for LMFOs shall provide a description of soil resources including soil survey information of the licensed area containing the following:
    - (i) A map delineating different soil types on a scaled aerial photograph.
    - (ii) Location of all soil sampling sites.
    - (iii) Soil description of all soils used for land application pursuant to USDA description.
    - (iv) An assessment of suitability of the soil for land application purposes. The assessment shall be certified by a Professional Engineer registered in the State of Oklahoma.
  - (C) 100 year flood plain map, if applicable. In no event shall a waste storage structure be located within the 100 year flood plain as established by the Federal Emergency Management Agency (FEMA).

- (D) Applications for LMFOs shall provide a description of existing land uses and land use classification pursuant to local law or ordinance, if any, of the proposed license area and adjacent areas. The burden shall be upon the owner to comply with local and use law and ordinances.
- (E) Applications for LMFOs shall provide a description of geologic information, including at a minimum:
- (i) The geology of the proposed license area down to and including the first aquifer, but not more than one hundred (100) feet below the bottom of the waste retention structure.
  - (ii) Geological information based on published geological literature and subsurface investigation otherwise required for the license application, including lithology from water wells on site and seismicity information. Geologic information may be provided by an agency review of the project performed by the Oklahoma Geological Survey and provided to the Department with the license application.
- (F) Applications for LMFOs shall include a description of water resources, including the following:
- (i) Quality of surface water resources.
    - (I) Identification of all surface waters of the state within a three (3) mile distance of the waste retention structure as identified on a current USGS 7.5 minute topographic map.
    - (II) Location, name, and description of all surface water bodies identified in (I) including streams, lakes, discharges, and impoundments within the three (3) mile radius.
    - (III) Beneficial uses, limitations, and remarks of all listed streams in the drainage area of the facility as listed in Appendix A of Chapter 45 of Title 785 of the Oklahoma Administrative Code.
  - (ii) Quality of groundwater resources.
    - (I) An inventory of all existing and abandoned wells, springs, and known or reasonably discoverable test holes.
    - (II) Groundwater description shall include a measurement of seasonal static water levels, direction of flow, and delineation of recharge areas pursuant to the Oklahoma Water Resources Board or other agency's data.
    - (III) Baseline sampling for ~~groundwaters~~ ground waters accessible at the facility shall include electrical conductivity, pH, ammonium-nitrogen, nitrate-nitrogen, total phosphorus, and fecal coliform bacteria.
- (G) Applications for LMFOs shall include a description of the climatological factors that are representative of the proposed license area and adjacent areas as available from published sources, including average seasonal precipitation, average direction and velocity of prevailing winds, seasonal temperature changes, average evaporation rate, and other information requested by the Department.
- (H) Applications for LMFOs shall include a map delineating existing vegetation types and a description of the plant communities within the proposed permit area and adjacent areas pursuant to information available from the Oklahoma Biological Survey.

- (I) Applications for LMFOs shall include a description of fish and wildlife resources information for the license area and adjacent areas. The scope and level of detail to be provided may be expanded by the Department in consultation with State and Federal agencies with responsibility for fish and wildlife propagation. Site specific information necessary to address the respective species shall be required when the license area or adjacent areas are likely to include endangered or threatened species of plants or animals or their critical habitat.
- (J) Applications for LMFOs shall include an identification and description of cultural and historical resources listed on the National Register and known archeological features as found in the Oklahoma Archeological Survey and Oklahoma State Historic Preservation Society of those located within the proposed license area.
- (16) Report from an independent soil testing laboratory containing the following:
- (A) Site map showing the location of all soil borings in relation to the facility and waste retention structure.
- (i) The test boring shall be in the immediate vicinity of the proposed waste retention structure.
- (ii) Bore holes shall be left open for a minimum of 48 hours for the groundwater to recover.
- (iii) All bore holes shall be plugged according to Oklahoma Water Resources Board requirements.
- (B) Soil tests per ASTM standards on all soils to be used in construction of the liner, with the following procedures and results reported:
- (i) Grain size particle distribution analysis according to ASTM standards.
- (ii) A standard Proctor compaction ~~test based~~ test based on ASTM D 698 procedure.
- (iii) Perform Atterberg limits test per ASTM standards (ASTM D 4318).
- (iv) Permeability tests on remolded samples compacted at ninety-five percent (95%) of standard Proctor maximum dry density at optimum moisture content conducted in accordance with ASTM D 5084 for the measurement of Hydraulic Conductivity of Saturated Porous Materials using a Flexible Wall Permeameter.
- (v) Laboratory tests of representative samples presented in summary tables and on boring logs.
- (vi) Applications for LMFOs shall include the basis for estimating available volume of soil (ft<sup>3</sup>) to be used in the soil liner. Estimated values shall be verified in the field during construction.
- (C) Provide a soil boring log showing lithology, the above test results, and the classification of soils based on the Unified Soil Classification system.
- (D) USDA Natural Resources Conservation Service (NRCS) soil testing standards and procedures shall only be substituted if the retention structure is designed by USDA NRCS Engineers.
- (E) Where required by the Oklahoma Water Resources Board, all applications for LMFOs shall include a copy of a properly prepared Multi-Purpose Completion Form as submitted to the Oklahoma Water Resources Board for all soils investigation.
- (17) All applications for LMFOs shall provide documentation relating to and verifying that a minimum ten (10) foot separation exists between the bottom of each waste retention structure and the highest annual or seasonal level of groundwater elevation at the waste

retention structure site based on all data available, including the perched water table and regional water table or aquifer. The perched water table shall include all local zones of saturation above the regional water table.

- (A) Documentation of a ten (10) foot separation shall be established by submission of a soil log from a soil boring extending a minimum of ten (10) feet below the bottom of all waste retention structures to ascertain the presence of groundwater or bedrock.
  - (B) Documentation containing a statement from a Professional Engineer registered in the state of Oklahoma certifying existence of the ten (10) foot separation distance.
- (18) Laboratory test reports showing the amount of Nitrogen as Nitrate and total Phosphorous contained in the following:
- (A) Groundwater from all existing water wells located at the facility and land application sites.
  - (B) All surface water impoundments located at the facility and land application sites.
  - (C) Composite soil samples from each land application site. Applications for LMFOs shall, at a minimum, include analysis of soils for electrical conductivity, pH, nitrate-nitrogen, ammonium-nitrogen, organic matter, sodium, potassium, calcium, magnesium, available phosphorus, and total nitrogen. Additional parameters may be required upon request of the Department. A map showing the location of each soil sample shall be provided. All soil sampling at LMFOs shall be performed pursuant to one of the following procedures:
    - (i) Soil sampling shall be conducted using Oklahoma State University Fact Sheet #PT 97-37 and F-2207, or current equivalents.
    - (ii) A total of thirteen (13) soil samples shall be collected from each forty (40) acre land application area, one sample from each corner of a six hundred and sixty (660) foot or ten (10) acre grid, with one sample from the center of each grid. One single composite soil sample may be prepared for analysis if the proposed land application area is dominated by one soil type. Where land application is achieved by center pivot irrigation, only those grid points within the application area shall be sampled.
- (19) A Pollution Prevention Plan (PPP) which contains a Swine Waste Management Plan, a carcass disposal plan, an erosion control plan, and Best Management Practices (BMPs). Applications for LMFOs shall also include an Odor Abatement Plan (OAP), a Pest Management Plan (PMP), and any other plan required by the Department.
- (20) A notarized sworn statement signed by the owner accepting full responsibility for properly closing all waste retention structures upon termination of the swine feeding operation.
- (21) All applications for LMFOs shall include a closure plan pursuant to OAR 35:17-3-25.
- (22) A financial statement declaring the financial ability of an owner to operate a swine feeding operation with a liquid waste management system in order to comply with ~~the surety~~ the surety requirements of the Act. The financial statement shall be confidential and shall not be opened to public inspection.
- (23) A notarized certification signed by the person applying for a license, which states: "I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure qualified personnel

properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for knowingly submitting false, inaccurate, or incomplete information, including the possibility of fines for each violation."

(24) All documentation deemed necessary and requested by the Oklahoma Department of Agriculture, Food, and Forestry to assure the quality of waters of the state are not compromised, including waste retention structure liner specifications and design plans providing a minimum of a ten (10) foot separation between the bottom of each liquid waste retention structure and the highest annual or seasonal elevation of groundwater for LMFOs and any other information required by the Department directly related to the construction, installation, or future modification or operation of a swine feeding operation.

(b) All items listed in subpart (a) of this section shall be received by the Department before the application is considered complete. At the Department's discretion, no action will be taken on the application until all items have been received by the Department, including but not limited to presite inspections.

(c) All supporting documentation regarding methods used for preparing the license application for an LMFO, including calculation of waste retention structure capacity and land application rates, shall be based on published methods approved by the Department. Any other methods shall be used only upon approval by the Department prior to submission of the license application.

(d) A change in location of a waste retention structure for an LMFO after the initial application date shall result in a new application date assigned to that application and all requirements in effect at the new application date shall apply, including setbacks. A reconfiguration of barns or waste retention structures shall not be considered a change, but a new presite approval shall be obtained prior to the change. If the change in location is required by the Department, the initial application date continues to apply.

(e) Adjacent areas for purposes of the LMFO application review shall include all property within one (1) mile of the facility, or two (2) miles if the facility is an LMFO with a capacity of more than two thousand (2,000) animal units.

### **35:17-3-11. Pollution Prevention Plan (PPP)**

(a) Prior to the submission of a CAFO license application or modification, each facility shall develop or update a Pollution Prevention Plan (PPP) according to the Oklahoma Swine Feeding Operations Act and rules promulgated pursuant to the Act. ~~The Plan shall include provisions for documentation of structural controls, documentation of operating Best Management Practices (BMPs), a Swine Waste Management Plan, a carcass disposal plan for normal and emergency disposal of carcasses, and record keeping provisions. The Plan shall identify an individual who is responsible for implementing, maintaining, and revising the PPP. The PPP for an LMFO shall also include an Odor Abatement Plan (OAP) and a Pest Management Plan (PMP).~~

(b) The PPP shall include provisions for documentation of structural controls, documentation of operating Best Management Practices (BMPs), a Swine Waste Management Plan, a carcass disposal plan for normal and emergency disposal of carcasses, and record keeping provisions.

(c) The following forms and records shall be maintained by the CAFO for each PPP:

- (1) weekly wastewater measurements;
- (2) daily precipitation measurements;

- (3) spill reporting forms;
- (4) discharge reporting forms;
- (5) quarterly inspection and maintenance records;
- (6) annual inspection records;
- (7) preventive maintenance records;
- (8) employee annual education records (if applicable);
- (9) records of manure or wastewater sold or transferred (if applicable);
- (10) records of land application of solid manure (if applicable);
- (11) records of land applicataion of liquid manure (if application);
- (12) records of land application of compost from mortalities (if applicable)
- (13) mortality management records; and
- (14) other site specific information requested by the Department.

(d) The Plan shall identify an individual who is responsible for implementing, maintaining, and revising the PPP.

(e) The PPP for an LMFO shall also include an Odor Abatement Plan (OAP) and a Pest Management Plan (PMP).

~~(b)~~(f) Equivalent measures contained in a site specific swine waste management plan prepared by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) may be substituted for the appropriate PPP requirements. An AWMP developed by USDA NRCS can be substituted for the documentation of land application rate calculations.

~~(e)~~(g) With Department approval, the owner shall amend the PPP prior to any change in design, construction, operation, or maintenance, which has significant effect on the potential for the discharge of pollutants to the surface or groundwaters of the State.

~~(d)~~(h) The owner shall implement appropriate changes to the Plan within ninety (90) calendar days of notification that the plan does not meet one or more specified minimum requirements unless otherwise provided by the Department. If notice of changes is not received by the Department within the prescribed ninety (90) calendar days, the application shall be denied.

~~(e)~~(i) In addition to the requirements of the Act, the PPP shall include:

- (1) A list of materials that are used, stored, or disposed of at the facility which may cause pollution. A contingency plan for releases of potential pollutants shall also be included. The PPP shall contain a log of any pollutant releases and clean up of those materials. Documentation of releases shall include any corrective action taken to prevent recurrence.
- (2) Testing of groundwater, Nitrogen as Nitrate, total Phosphorous, and fecal coliform bacteria levels shall be performed by an Oklahoma Department of Environmental Quality certified independent testing laboratory at least annually. All testing shall establish a management record, with all costs paid by the owner. Owners of LMFOs shall sample groundwater annually for electrical conductivity, pH, ammonium-nitrogen, nitrate-nitrogen, total phosphorus, and fecal coliform bacteria.
- (3) Soil tests from land application sites shall be performed by an Oklahoma Department of Environmental Quality certified testing laboratory or State operated laboratory at least annually. All testing shall establish a management record, with all costs paid by the owner. Owners of LMFOs shall perform soil tests for electrical conductivity, pH, nitrate-nitrogen, ammonium-nitrogen, organic matter, sodium, potassium, calcium, magnesium, available phosphorus, and total nitrogen. Soil test results shall be maintained at the site for as long as the facility is in operation.

(4) Sufficient testing of wastewater in waste storage facilities shall be required at least every three (3) years and performed by a qualified independent testing laboratory. Testing may be required more frequently at an individual facility at the Department's request. All owners of LMFOs shall sample waste retention structure contents annually prior to the first land application of the calendar year. Owners of LMFOs shall sample waste retention structure contents for ammonium-nitrogen, nitrate-nitrogen, total phosphorus, electrical conductivity, pH, sodium, potassium, calcium, magnesium, total nitrogen, and total solids. Additional parameters may be required upon request of the Department.

(5) A description of management controls appropriate for the facility. The owner initiates these controls. The appropriateness and priorities of any controls shall reflect the identified sources of pollutants at the facility and conform to criteria established by the Act and the Department.

(A) The location and a description of existing surface water controls. Structural controls shall be inspected at least quarterly each year for structural integrity and maintenance.

(B) Documentation of retention structure capacity shall be submitted to the Department and shall be based upon input parameters, the assumptions and actual calculations, showing volumes for all intermediate steps, used in determining the appropriate volume capacity. All waste retention structures for LMFOs shall be designed for the maximum number of swine that are or will be licensed at the facility. Retention structure capacity shall be based upon the following, at a minimum:

(i) The runoff volume from open lot surfaces.

(ii) The runoff volume from areas between open lot surfaces and the retention structure.

(iii) The rainfall multiplied by the area of the retention structure.

(iv) The volume of rainfall from any roofed area that is directed into the retention structure.

(v) All waste and process generated wastewater produced during a period of time not less than one-hundred-eighty (180) calendar days, including: volume of wet manure that enters a pond; plus volume of water used for manure or waste removal; plus volume of wash or cleanup water; plus other water, including drinking water that enters the retention structure.

(vi) Volume of a 25-year, 24-hour rainfall event.

(vii) One (1) foot of freeboard below spillway or outlet.

(viii) A water budget based on real monthly or daily data from a rain gauge located near the facility.

(C) A description of the design standards for the retention facility embankments. The following minimum design standards are required for construction or modification of a retention structure embankment:

(i) Soils used in the embankment shall be free of foreign material, including trash, brush, and fallen trees.

(ii) The embankment shall be constructed in lifts no more than six (6) inches thick after compaction and compacted to a minimum of 95% of the maximum dry density and  $\pm 2\%$  of optimum moisture content as determined by ASTM D 698 standard proctor test.



(iii) Each lift of the embankment of the retention structures shall be checked to ensure proper compaction and moisture content; all readings shall be recorded and properly documented with minimum information required for documentation to include:

- (I) project name,
- (II) date,
- (III) test method used,
- (IV) site name,
- (V) technician name,
- (VI) location of reading, including sketch, if necessary,
- (VII) percent compaction,
- (VIII) wet density, pcf,
- (IX) dry density, pcf,
- (X) moisture content,
- (XI) lift number, and
- (XII) soils lab name, report number and proctor test results used to obtain field measurements.

(iv) If retention structures are constructed with an emergency spillway, a minimum of one (1) foot of freeboard shall be maintained between the top of the 25-year, 24-hour storm volume and the bottom of the emergency spillway.

(v) An erosion control plan shall be developed and approved by the Department detailing how the owner immediately stabilizes the embankment walls to prevent erosion and deterioration. The plan shall include a preventive maintenance section. Each plan shall be approved on a case by case basis and may include the use of vegetative cover, geomembrane liners, sod, or other Department approved methods for controlling erosion.

(vi) A permanent measuring device shall be maintained in the wastewater retention structure to show the volume required to contain a 25-year, 24-hour rainfall event. The device shall be visible from the top of the levee and a separate mark shall be placed on the measuring device clearly identifying the 25-year, 24-hour rainfall event. Installation of the measuring device shall be performed in a manner to protect the integrity of liner at all times.

(vii) A rain gauge shall be kept on site and properly maintained. A log of all measurable precipitation events shall be kept with the PPP.

(viii) Documentation of method used to ensure liner of the waste retention structure is protected at or below the inlet.

(6) All owners of LMFOs shall install a leak detection system or monitoring wells in accordance with criteria approved by the Department.

(A) Samples of groundwater shall be collected by the Oklahoma Department of Agriculture, Food, and Forestry at least annually. The analysis of the water samples shall be performed by a qualified environmental laboratory approved by the Oklahoma Department of Environmental Quality or the relevant certification agency for the state in which the laboratory is located and approved by the Oklahoma Department of Agriculture, Food, and Forestry. All costs of analysis shall be the responsibility of the owner of the LMFO.

- (i) The frequency of sampling may be reduced to once every three (3) years for those monitoring wells which have been sampled for at least three (3) consecutive years and have always been found to be dry.
- (ii) If any subsequent sampling event indicates the monitoring well is no longer dry, that monitoring well shall be sampled pursuant to this subsection.
- (B) All waste retention structures shall have sufficient numbers of groundwater monitoring wells upgradient and downgradient in the direction of groundwater flow. All monitoring well locations shall be approved by the Department on a case by case basis.
- (C) No monitoring well shall be installed more than one hundred and fifty (150) feet from the crown of the outer berm.
- (D) All new monitoring wells shall be drilled through the first aquifer encountered, but need not extend more than fifty (50) feet below the bottom of the waste retention structure. One downgradient monitoring well shall be drilled to the first aquifer encountered or the first impermeable layer, but need not extend more than one hundred (100) feet below the bottom of the waste retention structure.
- (E) All monitoring wells shall be drilled and completed by an Oklahoma Water Resources Board licensed monitoring well driller.
- (F) If no groundwater is encountered during the drilling operation, the bore hole shall be left open for at least forty eight (48) hours but not over thirty (30) days for the aquifer to recharge the bore hole. Thereafter, the bore hole shall be either developed into a monitoring well or plugged according to Oklahoma Water Resources Board requirements.
- (G) All new monitoring wells shall meet the following minimum requirements:
  - (i) A minimum of two (2) inch diameter PVC casing shall be used with a sealing cap on the bottom.
  - (ii) The casing shall consist of minimum SDR-21 rated casing with a minimum SDR-21 rated factory screen in the saturated zone, or the bottom ten (10) feet if no groundwater is encountered.
  - (iii) Perforated zone shall be gravel or sand packed originating at the bottom of the screen and extending to two (2) feet above the top of the screen, and otherwise as appropriate for the installation.
  - (iv) Bentonite shall be placed in the annular space of the well above the gravel or sand pack for an interval of at least two (2) feet to form an impermeable seal.
  - (v) A cement grout or a mixture of bentonite and cement shall be placed above the bentonite seal to prevent seepage from entering behind the pipe and causing hydrologic connection.
  - (vi) At least the top ten (10) feet of the annular space shall be filled with type A cement.
  - (vii) A concrete apron, minimum of four (4) inch thickness and two (2) feet from the casing shall be installed at the surface to prevent seepage of rain water into the bore hole. The apron shall be sloping away from the casing to avoid percolation of rain water.
  - (viii) A lockable protective cap shall be placed on top of the casing, which shall be a metal protective casing extending two (2) feet above the concrete apron and

one (1) foot into the apron. The well shall remain securely capped and locked at all times, except during sampling events.

(ix) Within thirty (30) days of installation, a copy of the Oklahoma Water Resources Board approved Multi-Purpose Completion Form shall be submitted to the Department.

(x) Existing monitoring wells shall be evaluated on a case by case basis by the Department to determine equivalency. Monitoring wells previously required and approved by the Department shall be considered equivalent.

(H) Groundwater monitoring wells shall be sampled at least annually for electrical conductivity, pH, ammonium-nitrogen, nitrate-nitrogen, total phosphorus, and fecal coliform bacteria.

(I) Owners of LMFOs may install a leak detection system instead of monitoring wells. The system shall be approved by the Department on a case by case basis.

(7) The following records, in addition to those required by the Act, shall be maintained at the site for a minimum of three (3) years:

(A) Weekly measure of water level in the retention facility;

(B) Quarterly inspection and maintenance reports;

(C) Copies of waste retention structure liner specifications and design plans and any other information required by the Department directly related to the construction, installation, or future modification or operation of the swine feeding operation;

(D) Copies of groundwater sample laboratory analyses;

(E) Waste retention structure(s) contents sample laboratory analyses;

(F) Dates of inspections of the retention structure and a log of the findings of the inspections;

(G) A rain gauge shall be kept on site and properly maintained. A log of all measurable precipitation events shall be kept with the PPP;

(H) If swine wastes are sold or given to other persons for disposal, the owner of the LMFO shall maintain a log of the following:

(i) Date of removal from the swine feeding operation,

(ii) Name of hauler, and

(iii) Amount in wet tons, dry tons, gallons, or cubic yards of waste removed from the swine feeding operation;

(I) A log of employee training and education shall be maintained at the site;

(J) A complete inspection of the site shall be performed at least annually by the owner. A report documenting the findings of the inspection shall be prepared and retained which includes the operative status of the check valves system on applicable wells;

(K) Records of incidents including spills, discharges, and other information describing the pollution potential and quantity of the discharge shall be included in the records. Inspections and maintenance activities shall be documented and recorded; and

(L) Records documenting significant observation made during the site inspection shall be retained as part of the PPP.

(8) The following records, in addition to those required by the Act, shall be maintained at the site as long as the facility is in operation:

(A) Documentation of no significant impact, if applicable,

- (B) Copy of Notice of Intent (NOI) or Notice of Termination (NOT), if applicable,
- (C) Copy of EPACAFO General Permit, if applicable,
- (D) Copies of soil samples/test/laboratory results from land application fields, and
- (E) A notarized sworn statement signed by the owner accepting full responsibility for properly closing all waste retention structures upon termination of the swine feeding operation.

#### **SUBCHAPTER 4. CONCENTRATED ANIMAL FEEDING OPERATIONS**

##### **35:17-4-4. License application for new facilities or operations**

- (a) In addition to the items required by the Oklahoma Concentrated Animal Feeding Operations Act, the application for a CAFO license of a new facility or an operation shall contain, as a minimum, the following information:
- (1) Name and address of the owner of the facility.
  - (2) Name and address of the animal feeding operation, including driving directions from the nearest municipality and legal description of the facility.
  - (3) Name and address of the operator if other than the owner.
  - (4) Capacity in animal units and number and type of animals housed or confined.
  - (5) If owner is a firm, partnership, corporation, or other legal entity, the name and address of each member with an ownership interest of ten percent (10%) or more.
  - (6) If owner is a corporation, the name and address of the corporation and the name and address of each officer and registered agent of the corporation.
  - (7) Environmental history of the past three (3) years of any CAFO operation established or operated by the owner or any other operation with common ownership in Oklahoma or any other state, including all citations, administrative orders or penalties, civil injunctions or other civil actions, and criminal actions, past, current, and ongoing, taken by any person, agency, or court relating to noncompliance with any environmental law, rule, agency order, or court action in conjunction with the operation of an animal feeding operation.
  - (8) List of all environmental awards or citations received or pollution prevention or voluntary remediation efforts undertaken by the owner.
  - (9) Copy of deed, contract to purchase, or option to purchase the proposed site of the facility, waste retention structures, and land application sites. If land application sites are not owned by the applicant, provide a notarized signed copy of spreading or effluent agreement.
  - (10) A map of all property owners within one (1) mile of the facility and waste retention structures and a corresponding mailing list.
  - (11) A plat showing:
    - (A) Location of the facility, waste retention structures, and all land application sites.
    - (B) Location and distance of all occupied residences within one (1) mile of the facility and waste retention structures. The distances shall be measured from the nearest point of the waste retention structure to the nearest point of the occupied residence.
    - (C) Location and distance of all occupied residences within six-hundred (600) feet of any land application site. The distances shall be measured from the nearest point of the land application site to the nearest point of the occupied residence.

- (D) Location and distance of all existing public or private drinking water wells within four-hundred (400) feet of any land application site. The distance shall be measured from the nearest point of the land application site to the nearest point of the drinking water well.
- (E) All open roads surrounding the facility and all land application sites.
- (12) If applicable, a copy of the written waiver by a property owner, municipality, or governing body releasing specified setback requirements as provided by the Act.
- (13) Characterization of the physical and environmental setup of the facility, including but not limited to the following:
- (A) Description of topography using a current USGS 7.5 minute topographic map highlighting the location of waters of the state within three (3) miles of the facility, waste retention structures and all land application sites, an outline of the watershed drainage area, and arrows indicating general direction of surface water drainage from the facility, waste retention sites, and land application sites.
  - (B) Soil map showing soil types at the facility, waste retention structure, and all land application sites.
  - (C) 100 year flood plain map, if applicable. In no event shall a waste storage structure be located within the 100 year flood plain as established by the Federal Emergency Management Agency (FEMA).
- (14) Report from an independent soil testing laboratory containing the following:
- (A) Site map showing the location of all soil borings in relation to the facility and waste retention structure.
    - (i) The test boring shall be in the immediate vicinity of the proposed waste retention structure.
    - (ii) Bore holes shall be left open for a minimum of 48 hours for the groundwater to recover.
    - (iii) All bore holes shall be plugged according to Oklahoma Water Resources Board requirements.
  - (B) Soil tests per ASTM standards on all soils to be used in construction of the liner, with the following procedures and results reported:
    - (i) Grain size particle distribution analysis according to ASTM standards.
    - (ii) A standard Proctor ~~compaction test~~ compaction test based on ASTM D 698 procedure.
    - (iii) Perform Atterberg limits test per ASTM standards (ASTM D 4318).
    - (iv) Permeability tests on remolded samples compacted at ninety-five percent (95%) of standard Proctor maximum dry density at optimum moisture content conducted in accordance with ASTM D-5084 for the measurement of Hydraulic Conductivity of Saturated Porous Materials using a Flexible Wall Permeameter.
    - (v) Laboratory tests of representative samples presented in summary tables and on boring logs.
  - (C) Provide a soil boring log showing lithology, the above test results, and the classification of soils based on the Unified Soil Classification system.
  - (D) USDA Natural Resources Conservation Service (NRCS) soil testing standards and procedures shall only be substituted if the retention structure is designed by USDA NRCS Engineers.

(15) Laboratory test reports showing the amount of Nitrogen as Nitrate and total Phosphorous contained in the following:

(A) Groundwater from all existing water wells located at the facility and land application sites.

(B) All surface water impoundments located at the facility and land application sites.

(C) Composite soil samples from each land application site.

(16) A Pollution Prevention Plan (PPP) which contains an Animal Waste Management Plan (AWMP), a carcass disposal plan, an erosion control plan, and Best Management Practices (BMPs).

(17) A notarized sworn statement signed by the owner accepting full responsibility for properly closing all waste retention structures upon termination of the CAFO operation.

(18) A financial statement declaring the financial ability of an owner to operate an animal feeding operation with a liquid waste management system in order to comply with the surety requirements of the Act. The financial statement shall be confidential and shall not be opened to public inspection.

(19) A notarized certification signed by the person applying for a license, which states: "I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for knowingly submitting false, inaccurate, or incomplete information, including the possibility of fines for each violation."

(20) All documentation deemed necessary and requested by the Oklahoma Department of Agriculture, Food, and Forestry to assure the quality of waters of the state are not compromised, including waste retention structure liner specifications and design plans and any other information required by the Department directly related to the construction, installation, or future modification or operation of a CAFO.

(b) All items listed in subpart (a) of this section shall be received by the Department before the application is considered complete. At the Department's discretion, no action will be taken on the application until all items have been received by the Department, including but not limited to presite inspections.

### **35:17-4-9. Pollution Prevention Plan (PPP)**

(a) Prior to the submission of a CAFO license application or modification, each facility shall develop or update a Pollution Prevention Plan (PPP) according to the Oklahoma Concentrated Animal Feeding Operations Act and rules promulgated pursuant to the Act. ~~The Plan shall include provisions for documentation of structural controls, documentation of operating Best Management Practices (BMPs), an Animal Waste Management Plan (AWMP), a carcass disposal plan for normal and emergency disposal of carcasses, and record keeping provisions. The Plan shall identify an individual who is responsible for implementing, maintaining, and revising the PPP.~~

(b) The PPP shall include provisions for documentation of structural controls, documentation of operating Best Management Practices (BMPs), an Animal Waste Management Plan (AWMP),

a carcass disposal plan for normal and emergency disposal of carcasses, and record keeping provisions.

(c) The following forms and records shall be maintained by the CAFO for each PPP:

- (1) weekly wastewater measurements;
- (2) daily precipitation measurements;
- (3) spill reporting forms;
- (4) discharge reporting forms;
- (5) quarterly inspection and maintenance records;
- (6) annual inspection records;
- (7) preventive maintenance records;
- (8) employee annual education records (if applicable);
- (9) records of manure or wastewater sold or transferred (if applicable);
- (10) records of land application of solid manure (if applicable);
- (11) records of land applicataion of liquid manure (if application);
- (12) records of land application of compost from mortalities (if applicable)
- (13) mortality management records; and
- (14) other site specific information requested by the Department.

(d) The Plan shall identify an individual who is responsible for implementing, maintaining, and revising the PPP.

~~(b)~~(e) Equivalent measures contained in a site specific AWMP prepared by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) may be substituted for the appropriate PPP requirements. An AWMP developed by USDA NRCS can be substituted for the documentation of land application rate calculations.

~~(e)~~(f) With Department approval, the owner shall amend the PPP prior to any change in design, construction, operation, or maintenance, which has significant effect on the potential for the discharge of pollutants to the surface or groundwaters of the State.

~~(d)~~(g) The owner shall implement appropriate changes to the Plan within ninety (90) calendar days of notification that the plan does not meet one or more specified minimum requirements unless otherwise provided by the Department. If notice of changes is not received by the Department within the prescribed ninety (90) calendar days, the application shall be denied.

~~(e)~~(h) In addition to the requirements of the Act, the PPP shall include:

- (1) A list of materials that are used, stored, or disposed of at the facility which may cause pollution. A contingency plan for releases of potential pollutants shall also be included. The PPP shall contain a log of any pollutant releases and clean up of those materials. Documentation of releases shall include any corrective action taken to prevent recurrence.
- (2) Testing of groundwater, Nitrogen as Nitrate, total Phosphorous, and fecal coliform bacteria levels shall be performed by an Oklahoma Department of Environmental Quality certified independent testing laboratory at least annually. All testing shall establish a management record, with all costs paid by the owner.
- (3) Soil tests from land application sites shall be performed by an Oklahoma Department of Environmental Quality certified testing laboratory or State operated laboratory at least annually. All testing shall establish a management record, with all costs paid by the owner.
- (4) Sufficient testing of wastewater in waste storage facilities shall be required at least every three (3) years and performed by a qualified independent testing laboratory. Testing

may be required more frequently at an individual facility at the Department's request. Additional parameters may be required upon request of the Department.

(5) A description of management controls appropriate for the facility. The owner initiates these controls. The appropriateness and priorities of any controls shall reflect the identified sources of pollutants at the facility and conform to criteria established by the Act and the Department.

(A) The location and a description of existing surface water controls. Structural controls shall be inspected at least quarterly each year for structural integrity and maintenance. Dates of inspections of the retention structure and a log of the findings of the inspections shall be maintained at the site.

(B) Documentation of retention structure capacity shall be submitted to the Department and shall be based upon input parameters, the assumptions and actual calculations, showing volumes for all intermediate steps, used in determining the appropriate volume capacity. Retention structure capacity shall be based upon the following, at a minimum:

(i) The runoff volume from open lot surfaces.

(ii) The runoff volume from areas between open lot surfaces and the retention structure.

(iii) The rainfall multiplied by the area of the retention structure.

(iv) The volume of rainfall from any roofed area that is directed into the retention structure.

(v) All waste and process generated wastewater produced during a period of time not less than twenty-one (21) calendar days, including: volume of wet manure that enters a pond; plus volume of water used for manure or waste removal; plus volume of wash or cleanup water; plus other water, including drinking water that enters the retention structure. The minimum twenty-one (21) day storage capacity is an absolute minimum. The minimum storage capacity may be increased depending on the number of acres available for land application, crops and crop water demands, climate conditions, operations and management.

(vi) Volume of a 25-year, 24-hour rainfall event.

(vii) One (1) foot of freeboard below spillway or outlet.

(viii) A water budget based on real monthly or daily data from a rain gauge located near the facility.

(C) A description of the design standards for the retention facility embankments. The following minimum design standards are required for construction or modification of a retention structure embankment:

(i) Soils used in the embankment shall be free of foreign material, including trash, brush, and fallen trees.

(ii) The embankment shall be constructed in lifts no more than six (6) inches thick after compaction and compacted to a minimum of 95% of the maximum dry density and  $\pm 2\%$  of optimum moisture content as determined by ASTM D 698 standard proctor test.

(iii) Each lift of the embankment of the retention structures shall be checked to ensure proper compaction and moisture content; all readings shall be recorded



and properly documented with minimum information required for documentation to include:

- (I) project name,
- (II) date,
- (III) test method used,
- (IV) site name,
- (V) technician name,
- (VI) location of reading, including sketch, if necessary,
- (VII) percent compaction,
- (VIII) wet density, pcf,
- (IX) dry density, pcf,
- (X) moisture content,
- (XI) lift number, and
- (XII) soils lab name, report number and proctor test results used to obtain field measurements.

(iv) If retention structures are constructed with an emergency spillway, a minimum of one (1) foot of freeboard shall be maintained between the top of the 25-year, 24-hour storm volume and the bottom of the emergency spillway.

(v) An erosion control plan shall be developed and approved by the Department detailing how the owner immediately stabilizes the embankment walls to prevent erosion and deterioration. The plan shall include a preventive maintenance section. Each plan shall be approved on a case by case basis and may include the use of vegetative cover, geomembrane liners, sod, or other Department approved methods for controlling erosion.

(vi) A permanent measuring device shall be maintained in the wastewater retention structure to show the volume required to contain a 25-year, 24-hour rainfall event. The device shall be visible from the top of the levee and a separate mark shall be placed on the measuring device clearly identifying the 25-year, 24-hour rainfall event. Installation of the measuring device shall be performed in a manner to protect the integrity of liner at all times.

(vii) A rain gauge shall be kept on site and properly maintained. A log of all measurable precipitation events shall be kept with the PPP.

(viii) Documentation of method used to ensure liner of the waste retention structure is protected at or below the inlet.

(6) The following records, in addition to those required by the Act, shall be maintained at the site for a minimum of three (3) years.

- (A) Weekly measure of water level in the retention facility;
- (B) Quarterly inspection and maintenance reports;
- (C) Other specific information required by the Department.

(7) The following records, in addition to those required by the Act, shall be maintained at the site as long as the facility is in operation:

- (A) Documentation of no significant impact, if applicable.
- (B) Copy of Notice of Intent (NOI) or Notice of Termination (NOT), if applicable.
- (C) Other records as required by the Department.

### **35:17-4-13. Carcass disposal**

(a) Dead animals shall be disposed of in accordance with a carcass disposal plan developed by the owner and approved by the Department which shall decrease the possibility of the spread of disease, reduce odors, and preclude contamination of ground and surface waters of the state. Dead animals shall be disposed of properly and in an environmentally safe manner in accordance with Federal, State, and local requirements. At all times the facility shall comply with the provisions of Section 1223 of Title 21 of the Oklahoma Statutes, in addition to compliance with the carcass disposal plan.

(b) The plan shall include provisions for the disposal of carcasses associated with normal mortality and shall include provisions for emergency disposal when a major disease outbreak or other emergency results in deaths significantly higher than normal mortality rates.

(c) Accepted methods of carcass disposal include the following:

(1) Rendering.

(A) The owner shall obtain a contract with a rendering service that insures disposal of all carcasses within a reasonable period of time. The name, address, and telephone number of the rendering service shall be provided. In addition, the frequency and schedule of carcass pickup shall be included.

(B) Storage facilities shall be sealed or have lids and maintained so as to prevent pests and odors.

(C) Sealed storage facilities shall not be required for animals weighing 300 pounds or more, but the prevention of pests and odors shall be addressed.

(2) Burial.

(A) Burial shall only be allowed as a method of carcass disposal if no reasonable alternative exists and the disposal plan contains specific measures and practices which are utilized to protect the ground and surface waters of the state.

~~(C)~~(B) Prior approval by the Department is required of any carcass disposal plan listing burial as the method of disposal.

(3) Composting.

(A) Prior approval by the Department is required of any carcass disposal plan listing composting as the method of disposal.

(B) The Department may require another method of carcass disposal other than composting if the Department determines that a more feasible and effective method of carcass disposal exists.

(4) Incineration shall only be used as method of carcass disposal if the animal feeding operation has a valid air quality permit from the Oklahoma Department of Environmental Quality, Air Quality Division.