

Codification through the 2012 Legislative session.
Subchapters 1, 3, 5 & 7
Board adoption - February 24, 2012
Gubernatorial approval - April 16, 2012
Legislative approval and final adoption - May 2, 2012
Effective date - July 1, 2012

**TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 621. NON-INDUSTRIAL DISCHARGING AND PUBLIC WATER
SUPPLY LAGOONS**

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SUBCHAPTER 1. GENERAL PROVISIONS

Section

252:621-1-1. Purpose

252:621-1-2. Definitions

252:621-1-1. Purpose

This Chapter establishes the operating and closure requirements for all non-industrial discharging and public water supply lagoons. This Chapter is authorized by 27A O.S. §§ 2-6-101 through 2-6-105, §§ 2-6-401 through 2-6-403 and § 2-6-501.

252:621-1-2. Definitions

The following words and terms, when used in this Chapter, shall have the following meaning, unless the context clearly indicates otherwise:

"Artificial membrane liner" means a manufactured liner material composed of plastics, resins or other flexible materials, which is designed and manufactured to be used to control the seepage or release of waste or wastewater through the liner material.

"Berm" means a man-made barrier designed to control wastewater and/or stormwater.

"Biosolids" means primarily organically treated wastewater materials from municipal wastewater treatment plants that are suitable for recycling as amendments. This term is within the meaning of "sludge" referenced in 27A O.S. § 2-6-101(11). Biosolids are divided into the following classes:

- (A) Class A Biosolids meets the pathogen reduction requirements of 40 CFR § 503.32 (a);
- (B) Class B Biosolids meets the pathogen reduction requirements of 40 CFR § 503.32 (b).

"Board" means the Environmental Quality Board.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

"Cell" means a single wastewater lagoon or a part of a multiple wastewater lagoon system that shares a dike with another lagoon area.

"DEQ" means the Oklahoma Department of Environmental Quality.

"Detention time" means the theoretical time required to displace the contents of a tank or treatment unit at a given rate of flow (volume divided by rate of flow). Also called "retention time".

"Dike" or **"Embankment"** means a bank, usually composed of earth, which is constructed to control or confine wastewater within a lagoon.

"Discharge" means any release by leaking, pumping, pouring, emitting, emptying, dumping, escaping, seeping, leaching or other means of release of wastes or wastewater into any waters of the state or into or on any location where they may enter waters of the state.

"Discharge point" or "outfall" means the point at which wastes or wastewater enters waters of the state or become waters of the state.

"Discharging lagoon" means any lagoon which has a permitted point source discharge to "waters of the state".

"Engineer" means a person who designed the sewage or wastewater treatment works and who conceived, developed, executed or supervised the preparation of the plan documents. Said person shall be licensed in the State of Oklahoma to practice engineering and shall be a registered professional engineer or a firm holding a valid certificate of authorization from the Oklahoma Board of Registration for Professional Engineers and Land Surveyors.

"EPA" means the United States Environmental Protection Agency.

"Executive Director" or "Director" means the Executive Director of the Department of Environmental Quality.

"Freeboard" means the vertical distance from the surface water level in the lagoon to a point which is even with the top of the dike.

"Holding capacity" means the volume of space in a lagoon which is calculated assuming a minimum freeboard of three (3) feet, or calculated by the freeboard specified in a permit issued or specific directive given by the Department.

"Lagoon" means a lined basin, whether with soil or with other DEQ approved material, either below or above ground level which is designed, maintained and/or operated to store, recycle, treat and/or dispose of municipal/domestic wastewater or stormwater, and shall include but is not limited to man-made topographic depressions, excavations, basins, diked areas, impoundments, pits and ponds.

"Land application" means the application of treated wastewater to a vegetated land surface with the applied wastewater being further treated as it flows through the plant-soil matrix.

"Liner" means a barrier which is designed, constructed and installed in a lagoon and which has appropriate chemical and physical properties to ensure that such structures do not fail to control the seepage or release of waste and wastewater from the lagoon.

"Mean" means the calculated arithmetic average of a set of numerical data.

"NRCS" means the Natural Resource Conservation Service.

"OAC" means Oklahoma Administrative Code.

"Oklahoma's Water Quality Standards" means the rules promulgated by the Oklahoma Water Resources Board and contained in OAC 785:45 which classify waters of the state, designate beneficial uses for which the various waters of the State shall be maintained and protected, and prescribe the water quality standards required to sustain designated uses.

"Operator" means the person responsible for the maintenance and operation of a wastewater treatment system or wastewater treatment works and responsible for keeping any required records and providing reports to the Department.

"Person" means any individual, company, corporation, government agency, municipality, or any other entity whatsoever.

"Point source" shall have the meaning assigned to that term in OAC 252:606.

"Receiving water" means that portion of any waters of the state into which wastes are or may be released, leached, or discharged. See also definition of "waters of the state".

"Sanitary wastewater" means and includes but is not limited to wastewater from drinking fountains, showers, toilets, lavatories, and kitchens.

"Septic" means bacterial activity in the absence of oxygen. This condition may cause enhancement of the growth of anaerobic bacteria and production of unpleasant odors.

"Total retention lagoon" means a lagoon designed and constructed to contain all wastewater without a discharge structure, in any and all types of weather conditions.

"Toxic substances" means substances regulated by the Department to protect beneficial uses of waters of the state, human health, or the environment.

SUBCHAPTER 3. PERMIT PROCEDURES

Section

252:621-3-1. Requirement to obtain permits

252:621-3-2. Compliance required

252:621-3-3. Annual permit fees for non-industrial discharging and public water supply lagoons

252:621-3-4. Financial assurance [REVOKED]

252:621-3-5. Operating permit application requirements for non-industrial wastewater land application systems [REVOKED]

252:621-3-6. Certification required [REVOKED]

252:621-3-1. Requirement to obtain permits

Permits issued by the DEQ are required for the construction, operation, installation, or modification of any non-industrial wastewater system covered by this Chapter and written approvals are required for the operation and closure of any non-industrial wastewater system covered by this Chapter and are processed according to the Uniform Permitting Act, Title 27A O.S. § 2-14-101, and the rules promulgated thereunder. This Chapter contains the standards to

be met. All changes in the treatment system, methods, wastes, activities or other changes shall be considered a major modification of a facility. Applications for modifications are subject to the requirements found in the Uniform Permitting Act and rules promulgated thereunder.

252:621-3-2. Compliance required

All permittees must operate non-industrial discharging and public water supply lagoons pursuant to the terms of the DEQ permit issued by the DEQ.

252:621-3-3. Annual fees for non-industrial discharging and public water supply lagoons

(a) Beginning July 1, 2008, the annual fee shall be in accordance with the following:

- (1) Population Range 0-100 - \$261.00
- (2) Population Range 101-500 - \$292.00
- (3) Population Range 501-1,000 - \$509.00
- (4) Population Range 1,001 - 5,000 - \$881.00
- (5) Population Range 5,001+ - \$1,005.00

(b) Fees are due upon receipt of an invoice mailed by the DEQ annually. Upon payment of the annual fee, the permit shall continue in effect for one year but in no case past its expiration. Failure to pay the fee may result in the suspension or termination of the permit.

(c) To assist in meeting rising costs to the Department for implementing the non-industrial discharging and public water supply lagoons program, the fees set out in (a) of this Section shall be automatically adjusted on July 1st every year to correspond to the percentage, if any, by which the Consumer Price Index (CPI) for the most recent calendar year exceeds the CPI for the previous calendar year. The Department may round the adjusted fees up to the nearest dollar. The Department may waive collection of an automatic increase in a given year if it determines other revenues, including appropriated state general revenue funds, have increased sufficiently to make the funds generated by the automatic adjustment unnecessary in that year. A waiver does not affect future automatic adjustments.

(1) Any automatic fee adjustment under this subsection may be averted or eliminated, or the adjustment percentage may be modified, by rule promulgated pursuant to the Oklahoma Administrative Procedures Act. The rulemaking process may be initiated in any manner provided by law, including a petition for rulemaking pursuant to 75 O.S. § 305 and OAC 252:4-5-3 by any person affected by the automatic fee adjustment.

(2) If the United States Department of Labor ceases to publish the CPI or revises the methodology or base years, no further automatic fee adjustments shall occur until a new automatic fee adjustment rule is promulgated pursuant to the Oklahoma Administrative Procedures Act.

(3) For purposes of this subsection, "Consumer Price Index" or "CPI" means the Consumer Price Index - All Urban Consumers (U.S. All Items, Current Series, 1982-1984=100, CUUR0000SA0) published by the United States Department of Labor. The CPI for a calendar year is the figure denoted by the Department of Labor as the "Annual" index figure for that calendar year.

252:621-3-4. Financial assurance [REVOKED]

252:621-3-5. Operating permit application requirements for non-industrial wastewater land application systems [REVOKED]

252:621-3-6. Certification required [REVOKED]

SUBCHAPTER 5. OPERATION AND MAINTENANCE

Section

252:621-5-1. Operation and maintenance for non-industrial discharging and public water supply

- lagoons
- 252:621-5-2. Operation and maintenance for non-industrial land application systems
[REVOKED]
- 252:621-5-3. Restrictions [REVOKED]
- 252:621-5-4. Construction standards [REVOKED]

252:621-5-1. Operation and maintenance for non-industrial discharging and public water supply lagoons.

The construction requirements contained in 252:656 shall apply to all non-industrial lagoons. The following operation and maintenance requirements shall apply to all non-industrial discharging and public water supply lagoons treating or storing wastewater:

(1) **Erosion control.** Protect all lagoon dikes and berms against erosion by using soil, gravel, concrete pads, shallow-root vegetation or other methods. Trees and deep-root vegetation shall not be used as erosion control and shall be removed in a timely manner to maintain the integrity and stability of the lagoon. Protect inner dikes from wave action and outer dikes from runoff and floodwaters.

(2) **Holding capacity.** Total retention lagoons shall be sized to contain the design flow of wastewater (including biosolids from non-industrial discharging wastewater lagoons and residuals from public water supply lagoons) plus expected rainfall plus 3 feet of freeboard. Where total retention is obtained by surface evaporation, the required area shall be based on design flow plus 90th percentile rainfall less the pan evaporation rates for the area where the lagoon will be located. Overflows shall be considered a violation of this Chapter and be subject to enforcement as an unpermitted discharge to waters of the state in violation of the Oklahoma Pollutant Discharge Elimination System Act.

(3) **Liner protection.** No action shall take place during the use, maintenance, or operation of the lagoon which would destroy or diminish the effectiveness of any liner system or increase the liner permeability.

(4) **Lagoon and system protection.** No action shall be allowed to breach the walls, berms, dikes, or other structures causing or allowing the wastewater contained to escape, unless specifically allowed in a discharge permit as an allowable discharge from a discharging lagoon.

(5) **Use and purpose of lagoon or disposal system.** All lagoons and systems covered by this Chapter shall be designed for a specific treatment purpose (such as settling, biological degradation, beneficial reuse or final disposal), and shall be maintained and operated to produce optimum treatment results. No unauthorized industrial wastewater, hazardous substances, chemicals or wastes shall be placed in a discharging or public water supply lagoon system.

(6) **Site security.** Restrict access to non-industrial discharging or public water supply lagoon systems and land application sites covered by this Chapter with fences, secured gates or other reasonable means. Post a sign listing the name of the facility operator, an emergency telephone number and the DEQ permit number.

(7) **Maintenance of wind action.** Trees, weeds, cattails, and all other obstructions shall be removed whenever they appear on or around the dikes or in the lagoon itself. Grass shall be mowed frequently to prevent the development of any obstructions to wind action and access.

(8) **Access road.** The access road to the lagoon shall be maintained so as to be passable during inclement weather conditions.

(9) **Other maintenance requirements.** All structures shall be maintained in good working order.

(10) **Prevention of pollution.**

(A) **Seepage.** Whenever seepage is suspected or discovered, the owner shall notify the Department by telephone within 24-hours and follow-up with a written report within 5 days. The operator must take actions necessary to stop all seepage exceeding 500 gallons/acre/day (5.4×10^{-7} cm/sec).

(B) **Total retention lagoon.** Discharge of wastewater from a total retention public

water supply lagoon is prohibited.

(C) **Seals.** The owner shall maintain the seal, whether it is a natural or artificial, to prevent seepage. The Department may require that a different type of seal be provided if the one in place does not work.

(D) **Freeboard.** Maintain at least 3 feet of freeboard on all lagoons covered by this Chapter unless otherwise specified in a permit. At no time shall wastewater be allowed to spill over the tops of the dikes.

(E) **Closure of the site.** Closure may be required by the DEQ if the facility is found to be in violation of applicable rules. Closure is required when the lagoon or land application site is permanently taken out of service. The owner shall close the site according to the requirements of Subchapter 9 of this Chapter.

(11) **Septic lagoons.** Take steps necessary to prevent septic conditions in lagoon systems. If a septic condition develops, take steps to correct the condition but in no case violate DEQ rules when taking corrective action.

(12) **Vector control.** Take steps to control vectors. In particular, mosquitoes and flies shall be controlled by providing adequate lagoon depth and wind action and by preventing the development of septic conditions.

(13) **Testing requirements.**

(A) All discharging and public water supply lagoons must conform with the minimum testing requirements of 252:606.

(B) No testing of raw or treated waste is required for total retention lagoons unless otherwise specified by the Department. However, it is recommended that testing for temperature, pH, dissolved oxygen and alkalinity be run on each cell twice weekly. Monthly operational reports shall include a report of estimated flow to the lagoon, population served, dates of site visits, specific types of maintenance performed, and problems encountered.

(14) **Surfactants.** The use of surfactants or other chemicals or additives that would increase the seepage rate through a lagoon bottom is specifically prohibited.

252:621-5-2. Operation and maintenance for non-industrial land application systems [REVOKED]

252:621-5-3. Restrictions [REVOKED]

252:621-5-4. Construction standards [REVOKED]

SUBCHAPTER 7. MONITORING, REPORTING, INSPECTIONS AND RECORDS REQUIREMENTS

Section

252:621-7-1. Reporting, records, compliance and sampling

252:621-7-2. Accidental spills and discharges

252:621-7-1. Reporting, records, compliance and sampling

(a) **Discharging lagoons and other sanitary wastewater disposal systems.** In addition to the provisions of this Chapter, discharging facilities must comply with OAC 252:606.

(b) **Records retention.** All records must be kept on site for DEQ review. The DEQ may require the owner or operator to submit records.

(c) **Additional requirements applicable to all facilities.** Additional or specific sampling, reporting, and/or records requirements may be included or required by the Department in any permit, authorization, order, consent decree, closure plan, remediation plan, or other official document issued by the Department pursuant to applicable law and the provisions of this Chapter.

(d) **Analyses.** All laboratory analyses required to be conducted pursuant to this Chapter shall be performed by laboratories certified by the Department.

(e) **Format required.** Monitoring and sampling information shall be supplied to the Department on forms approved by the Department and developed for the specific purpose or in such other form and format as may be specified by the Department.

252:621-7-2. Accidental spills and discharges

The provisions of OAC 252:605 regarding accidental spills and discharges without a permit shall apply.

SUBCHAPTER 9. CLOSURE REQUIREMENTS AND PLANS

Section

- 252:621-9-1. Termination of activities
- 252:621-9-2. Closure plan and amendment submittal
- 252:621-9-3. Closure plan content requirements
- 252:621-9-4. Certification of Closure

252:621-9-1. Termination of activities

When a non-industrial discharging or public water supply lagoon is permanently taken out of service, the owner or operator is required to properly close the facility within six (6) months unless a longer period is granted by the DEQ.

- (1) **Intent to close.** The owner or operator shall notify the DEQ, in writing, of intent to close a non-industrial discharging or public water supply lagoon system, or land application site at least 90 days before closing operation of the treatment unit. Closure activities cannot begin without written DEQ approval.
- (2) **Contents of notice.** Notice of intent to close must include:
 - (A) the name, address and title of person(s) who will remain in charge of or otherwise have continuing management responsibility of the facility and
 - (B) a detailed schedule of proposed closure activities
- (3) **Additional requirements.** The DEQ may require continuing monitoring, sampling, and reporting as deemed necessary.

252:621-9-2. Closure plan and amendment submittal

- (a) A written closure plan must be submitted to the DEQ at least 90 days prior to beginning closure activities.
- (b) Closure activities shall not begin prior to obtaining DEQ approval.
- (c) All amendments to the closure plan must be submitted and approved.

252:621-9-3. Closure plan content requirements

At a minimum, the written closure plan shall include the following information, as well as other information requested by the Department:

- (1) **General information.** The following general information shall be provided in all closure plans:
 - (A) State the purpose of closure indicating the reason why the lagoon or other facility is no longer in use. State whether the wastewater or biosolids from non-industrial discharging wastewater lagoons or residuals from public water supply lagoons will be removed.
 - (B) Provide the state discharge permit number for the facility, if any.
 - (C) Provide the name, address, and telephone number of all the record owner(s) of the land upon which the lagoon is located.
 - (D) Provide a time schedule indicating the major closure activities, approximate time to complete each activity, and the estimated date of final completion of all closure activities.

(E) If the lagoon or disposal system contains or is suspected to contain toxic substances, the closure plan shall include certification by a registered professional engineer.

(2) **Wastewater, biosolids or residuals characterization.** The minimum information about the wastewater, biosolids or residuals specified in this Section shall be included in the closure plan. Additional information may be required. When requested by the Department, provide a chemical analysis of representative sample(s) of the contents of the lagoon(s) or other sanitary wastewater disposal system.

(3) **Treatment, removal, and disposal.** When requested by the Department, the closure plan shall also include the following discussion of treatment, removal, and disposal activities:

(A) **Treatment.** Describe all treatment methods to be used to treat biosolids or residuals from the lagoon (e.g., chemical or physical treatment, waste stabilization, or other method).

(B) **Removal.** Describe all removal activities for all wastes, wastewaters, and biosolids or residuals (e.g., volume removed, equipment used, dust control, and other activities).

(4) **Additional closure requirements.** In addition to the other requirements of this Part of Subchapter 9, the following additional requirements apply for closure:

(A) Biosolids or residuals disposal requires approval of the Department as specified in OAC 252:606-8, whether the biosolids or residuals are proposed to be removed from the lagoon or are proposed to be left in place.

(B) If the average biosolid or residual thickness in the lagoon exceeds six (6) inches, the biosolids or residuals must be removed from the lagoon. Land application will require the approval by the Department of a Sludge Management Plan pursuant to OAC 252:606-8. Disposal of biosolids in a landfill, must meet the requirements of the Solid Waste Management Act and other applicable statutes and rules.

(C) If the average biosolid or residual thickness in the lagoon is six (6) inches or less, the Department may or may not require the biosolids or residuals to be removed from the lagoon, and will evaluate proper disposition of the biosolids or residuals and closure requirements for the lagoon on a case by case basis. Such evaluation and any approved closure plan must include consideration of requirements and criteria set forth in applicable rules of the Department relating to biosolids or residuals disposition.

252:621-9-4. Certification of Closure

A closure shall not be considered complete until the Department has received written Certification of Closure which shall include the following:

(1) The Certification shall state that all activities listed in the Department-approved closure plan were performed.

(2) On a case by case basis, the Department may require that the Certification of Closure be prepared and signed by a registered professional engineer.