Louisiana Administrative Code
Title 51
Part XIII. Sewage Disposal

Regulations Regarding Mechanical or Aerobic Wastewater Treatment System Installations with Rock Plant Filter Effluent Reduction For Individual Residential Installations

Chapter 3. General Requirements for Sewerage Disposal

§303. Responsible Parties
[formerly paragraph 13:003]

A. A person who owns, operates, manages, or otherwise controls any premises, shall provide for sewage disposal in a manner which is in compliance with this Code.

§305. Discharges
[formerly paragraph 13:004-1]

A. A person shall not directly or indirectly discharge, or allow to be discharged, the contents or effluent from any plumbing fixtures, vault, privy, portable toilet, or septic tank, into any road, street, gutter, ditch, water course, body of water, or onto the surface of the ground.

Chapter 7. Individual Sewerage Systems
[formerly Chapter 13 Subpart D]

Subchapter A. General Requirements

§703. Plans
[formerly paragraph 13:013-1]

A. The review and approval of plans and specifications for the proposed individual sewerage system shall be made in accordance with the "Regulations Controlling the Design and Construction of Individual Sewage Systems" (See Chapter 7, Subchapter B).

Subchapter B. Design and Construction Regulations

A. Mechanical wastewater treatment plants are small plants capable of providing primary and secondary treatment of sanitary sewage. All are considered to be aerobic treatment units.

B. An individual mechanical plant will be permitted where individual sewerage systems would currently be permitted under prevailing rules as set forth in this Part of the state sanitary code. Sewage loading criteria for determining the average daily design flow and organic loading are contained in Chapter 15 of this Part.

C. An individual mechanical plant will be permitted in lieu of a conventional septic tank system (septic tank/absorption field) only in accordance with the provisions of §511.B of this Code, and where a conventional septic tank system could not be permitted.

D. Permitted individual mechanical plants shall strictly comply with National Sanitation Foundation International Standard, NSF 40-1996 for Residential Wastewater Treatment Systems (Class I

Systems) as revised May 1996 and published by NSF International, P.O. Box 130140, Ann Arbor, Michigan 48113-0140 USA, and as has been approved by the American National Standards Institute, 11 West 42nd Street, New York, New York 10036 as standard ANSI/NSF 40-1996, revised May 28, 1996.

E. All individual mechanical plants currently approved for installation in Louisiana as of the effective date of these regulations shall not be required to meet the requirements of §725.D until March 1, 2001. Until March 1, 2001, plants shall continue to comply with the standards under which they were approved. Effective March 1, 2001, all plants shall comply with the standard as stated in §725.D.

F. In addition to evidence of strict compliance with NSF International Standard NSF 40-1996 (Class I Systems), and ANSI/NSF 40-1996 (Class I Systems), as are specified in §725.D of this Code, the following Department of Health and Hospitals/Office of Public Health (DHH/OPH) requirements shall also apply.

(d). It shall be required that manufacturers/sub-manufacturers/installers, as appropriate must provide a minimum two-year service policy to the purchaser of each individual mechanical (residential) plant purchased/ installed at no additional cost, with verification provided to DHH/OPH and the purchaser, of such service policy provision. The initial policy shall contain provisions for four inspection/service visits (scheduled once every six months over the two-year period) during which electrical, mechanical, and other applicable components are inspected, adjusted, and serviced. The initial service policy shall also contain provisions for an effluent quality inspection consisting of a visual assessment of color, turbidity, and scum overflow, and an olfactory assessment for odor.

§731. Effluent Reduction System Requirements for Treated Wastewater

A. Disinfectants. Where effluent discharges are required to be disinfected, and chlorine is used as the disinfectant, a chlorine contact chamber is required. Calcium hypochlorite, labeled for wastewater disinfection, shall be added in sufficient concentrations to maintain a minimum residual of 0.5 ppm total chlorine in the effluent. In order to achieve the required chlorine contact time, a baffled chlorine contact chamber designed to meet the needs for each system with the specified liquid holding capacity shall be used as follows.

Disinfectant Chamber Minimum Liquid Capacity	
Treatment Capacity of Sewerage System	**Contact Chamber Liquid Capacity**
500 GPD or less	30 gallons
501-750 GPD	45 gallons
751-1000 GPD	60 gallons
1001-1500 GPD	90 gallons

1. Any other disinfectant proposed for use should provide an equivalent level of disinfection.

B. Pumping Stations. Pumping station, when required, must be constructed of approved materials, and must comply with the applicable provisions of this Code.

C. Effluent Reduction Systems. Individual sewage systems, with a capacity up to and including 1500 gpd, that produce a treated, off-site effluent, shall include an effluent reducer as part of the overall system.

D. Special situations may arise where an individual on-site wastewater treatment system is allowed as per §511.B of this Code, but it is physically impossible to install the required size of the effluent reduction system or the effluent reduction system itself due to lot size or when a limited use sewerage system is installed in a marsh/swamp area or located over water. The size of the effluent reduction system can be reduced to the maximum amount the lot can accommodate or the installation waived with the authorization of the sanitarian parish manager. Written notification of such authorization must be submitted to the sanitarian regional director and a copy attached to the "Application for Permit for Installation of On-Site Wastewater Disposal System" (LHS-47).

E. All effluent reduction systems shall be installed by a licensed installer. Existing field lines can not be used as the effluent reduction system.

F. The size of the effluent reduction system installed has to correspond with the recommended size of the sewerage system. For example if a 750 GPD plant is required on the "Application For Permit For Installation of On-Site Wastewater Disposal System" (LHS-47), the applicant may install a 1000 GPD plant, however the size of the effluent reduction system only has to correspond to the minimum size required for a 750 GPD plant.

G. The sample port for a sewerage system must be installed immediately downstream of the system and in accordance with the appropriate edition and Section of NSF Standard 40, as currently promulgated, as well as the applicable provisions of this Code.

Rock Plant Filter Effluent Reduction

B. Rock-Plant Filter. All rock plant filters must be a minimum of 5 feet wide to a maximum of 10 feet wide.

1. The square footage will be determined by the treatment capacity of the sewerage system as follows.

Treatment Capacity of Sewerage System	Rock Plant Filter Size
500 GPD or less	150 square feet
501-750 GPD	225 square feet
751-1000 GPD	300 square feet
1001-1500 GPD	450 square feet

2. The rock plant filter (RPF) must be installed a minimum of 10 feet from any property line. In addition, the RPF location shall comply with the minimum distance requirements from water wells and suction lines, water pressure lines, etc., as contained in Parts XII and XIV of this Code.

3. If there is not sufficient grade to install the sewerage system and the rock plant filter with gravity flow to the discharge point, then a pumping station in compliance with applicable provisions of this Part must be installed.

4. In order to prevent backflow, a backwater valve is required whenever the discharge line is less than 12 inches above the ditch flow-line.

5. Only a standard shape bed may be installed with a minimum width of 5 feet and of such length as to provide the required square footage.

6. Plans for any other configuration must be submitted for review and approval to the sanitarian regional director.
7. A liner will be required when the ground water level is within 24 inches of the bottom of the trench.
8. The polyethylene liner may be of more than one layer provided a total thickness of 16 mil is achieved.
9. When a liner is not required, the use of landscape fabric is highly recommended to prevent weed intrusion.
10. The bottom of the bed must be level and be no deeper than 14 inches.
11. A depth of approximately 10 to 12 inches is best.
12. Gravel must be 2-3 inches in diameter and laid to a depth of 12 inches.
13. An 8-inch water level must be maintained. Gravel should fill the filter bed to above surface grade to prevent erosion.
14. The minimum 4-inch perforated inlet pipe must be located no closer than 4 inches from the bottom of the bed and supported by a footing of noncorrosive material, such as concrete or treated timber.
15. The inlet should extend no more than 2 feet into the rock plant bed and must be provided with a "Tee" (with ends capped) extending the width of the bed to within 1 foot of the side walls.
16. The outlet pipe shall also be set in a footing of noncorrosive material (concrete or treated timber) on the bottom of the bed with the same "Tee" and configuration. The outlet must be elbowed up and out.
17. Do not allow plants to grow within 3 feet of the inlet and outlet of the bed.
18. A levee support system around the perimeter of the filter should be constructed to exclude surface water. The use of landscape timbers for this purpose is acceptable. Other materials, such as concrete, can also be used.