Louisiana Administrative Code
Title 51
Part XIII. Sewage Disposal

Regulations Regarding Mechanical or Aerobic Wastewater Treatment System Installations with Effluent Reduction Fields For Individual Residential Installations

Chapter 3. General Requirements for Sewerage Disposal

§303. Responsible Parties

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
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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

Subchapter A. General Requirements

§703. Plans

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 [§1501.B.11 (Figures 11, 12, 13)] 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.

Effluent Reduction Field

A. Effluent Reduction Field. This system is installed downstream of a mechanical treatment plant or other sewage treatment system listed in Chapter 7 Subchapter B of this Code that produces an effluent, but does not by design significantly reduce that effluent. The effluent reduction field is essentially a soil absorption field as described in §719 of this Subchapter, but with modification as noted in this Section.

1. If there is not sufficient grade to install the sewerage system and the effluent reduction field with gravity flow to the discharge point, then a pump station in compliance with applicable provision of this code must be installed.

2. The force of the pumped effluent must be reduced by use of a distribution box, "Tee," or similar appurtenance.

3. The effluent reduction field trenches shall be at least 18 inches wide and between 16 to 24 inches in depth.

4. The bottom of the effluent reduction field must be level.

5. The fill or cover material shall be of porous soil or sand which allows the passage of water in all directions, with sod started on top. Fill should be at least 4 to 6 inches above grade and spread at least 3 to 4 feet on either side of the trench.

6. The effluent reduction field (ERF) must be installed a minimum of 10 feet from any property line. In addition the ERF field 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.

7. The minimum length of the effluent reduction field shall be determined by the treatment capacity of the sewerage system.

Treatment Capacity of Sewerage System	Minimum Total Length per Field
500 GPD or less	100 ft
501-750 GPD	150 ft
751-1000 GPD	200 ft
1001-1500 GPD	300 ft

8. If more than one absorption trench is used to provide the minimum required length of the effluent reduction field, the distance between individual trenches must be at least 6 feet with one discharge pipe provided.

9. The pipe from the end of the effluent reduction field to the discharge point must be solid.

10. A backwater valve must be provided at the end of the effluent reduction field whenever the discharge line is less than 12 inches above the ditch flow-line.

11. Each individual trench must not be greater than 100 feet in length. Clam or oyster shells may be substituted for gravel in the effluent reduction field. If used, gravel must be clean, graded and 1/2-inch to 2 1/2 inches in diameter. Other media may be considered for use if determined to have acceptable characteristics and properties. The end of the discharge line must have a 1/2 diameter PVC end cap over the lower half of the endpipe, causing longer retention of the effluent and providing greater opportunity for absorption. If the end of the discharge line is more than 2 inches lower than the absorption line, other provisions must be made to cause the effluent to be retained in the reduction field.

12. Gravelless pipe or other distribution chambers may be used in lieu of conventional soil absorption pipe. If gravelless pipe is used, the fill must be porous soil or sand which allows the passage of water in all directions, with a 6-inch layer below the pipe and filled 4 to 6 inches above grade and spread 3 to 4 feet on either side of the trench.