

7:9A-8.3 Advanced wastewater pretreatment components

(a) The use of an advanced wastewater pretreatment device in addition to a septic tank, or in lieu of a septic tank provided a primary settling component is incorporated into the design, may be allowed or required, at the discretion of an administrative authority, for new construction, projects where there is an increase in the expected volume of sanitary sewage pursuant to N.J.A.C. 7:9A-7.4, or to alter an existing, malfunctioning system. For individual systems with expected volumes of sanitary sewage less than or equal to 1,500 gallons per day, advanced wastewater pretreatment devices shall have obtained an NSF Standard 40 and/or Standard 245 certification, bear the mark of NSF and must be used in accordance with all conditions of that certification in addition to the requirements in this chapter. For systems with expected volumes of sanitary sewage greater than 1,500 gpd or systems that receive waste flows that are not residential in nature, advanced wastewater pretreatment devices shall be from a manufacturer that has obtained an NSF Standard 40 and/or Standard 245 certification for the treatment technology, be certified by the manufacturer that the technology is designed to achieve secondary effluent standards for the actual or proposed waste strength that will be generated at the site and must be used in accordance with all requirements in this chapter. The Department shall maintain a list of advanced wastewater pretreatment devices that are applicable under this section that comply with the following:

1. Any advanced wastewater pretreatment device manufacturer that wishes to have their device listed by the Department shall submit a written request and a copy of an NSF Final Report. The written request shall include an acknowledgement by the manufacturer to comply with all applicable requirements of this chapter.
2. Listed manufacturers shall make available up-to-date training, design, installation and service manuals and materials to any administrative authority or the Department upon request.
3. All advanced wastewater pretreatment devices shall be used in accordance with the provisions of this chapter and all documentation in the NSF Final Report provided to the Department.

(b) Prior to submitting any design that includes an advanced wastewater pretreatment device to the administrative authority, a system designer shall:

1. Certify in the application that they are sufficiently knowledgeable of the technology(ies) to design the system;
2. Design systems that include advanced wastewater pretreatment devices in a manner which meets all manufacturer's minimum specifications and/or recommendations;
3. Design all advanced wastewater pretreatment devices so that the raw wastewater cannot be discharged without first being properly treated by the treatment unit as it was designed. The design shall provide that the liquid levels in the tanks or other treatment vessels shall be monitored by a properly functioning high level alarm and any other monitoring equipment or alarm as recommended by the manufacturer;
4. Utilize the manufacturer's recommendations for sizing of the advanced wastewater pretreatment whenever a discrepancy occurs between the estimated volume of sanitary sewage calculated in accordance

with N.J.A.C. 7:9A-7.4 and the manufacturer's recommended sizing of the advanced wastewater pretreatment device. Sizing of all other components of the system shall conform to this chapter.

5. For non-residential systems, obtain a letter from the manufacturer, or the manufacturer's representative and provide it to the administrative authority, verifying the design's consistency with all manufacturer's minimum specifications and recommendations. The administrative authority may require the septic system designer to obtain a letter from the manufacturer, or the manufacturer's representative, for residential systems and provide it to the administrative authority, verifying the design's consistency with all manufacturer's minimum specifications and recommendations;
6. Include in the design of the system a control panel that tracks, at a minimum, pump elapsed time, cycle counts and high-level alarm counts or other means to determine flow through the system and any other system information for troubleshooting purposes as recommended by the manufacturer.
 - i. Systems may be equipped with a telemetry control panel, attached to an Internet-based interface that provides continuous remote monitoring, information management and control of the advanced wastewater pretreatment device; or
 - ii. Systems that do not have a telemetry control panel shall use an active phone line equipped with an auto dialer to notify the authorized service provider of alarm conditions, including if power to any of the system equipment is disconnected;
7. Design the system so that all processing tanks, discharge tanks and related treatment unit(s) shall maintain the same minimum separation distances as required for septic tanks at N.J.A.C. 7:9A-4.3;
8. Include in the system design only advanced wastewater pretreatment devices that are watertight. All advanced wastewater pretreatment devices must be designed in a manner that considers all structural issues including, but not limited to, venting of the disposal area, load bearing, buoyancy and all other structural effects on the treatment unit for the intended installation;
9. Include in the design a septic tank prior to any advanced wastewater pretreatment devices unless otherwise specifically identified in the NSF Standard 40 or 245 certification and the manufacturer's recommendations or specifications. Effluent filters required at N.J.A.C. 7:9A-8.2 may be relocated to another point downstream of the septic tank or may be eliminated provided that this design consideration is specifically identified in the manufacturer's recommendations or specifications;
10. Include within any system that incorporates an advanced wastewater pretreatment device a method of sampling wastewater after the advanced wastewater pretreatment device to monitor effluent quality after final treatment has been achieved. This method of sampling must be achievable at final grade without excavation; and
11. Note in the design all installation requirements in (c) below, and all maintenance and monitoring requirements required by N.J.A.C. 7:9A-12.3.

(c) The following requirements are applicable to the installation of an advanced wastewater pretreatment device;

1. An authorized installer shall be physically present at all times during installation of an advanced wastewater pretreatment device and either install or directly oversee the installation of the advanced wastewater pretreatment device.
2. The authorized installer shall ensure that the property owner has been provided with a copy of the service contract and agrees to comply with the requirements therein by obtaining their written acknowledgement via signature prior to the installation of any system that incorporates an advanced wastewater pretreatment device.
3. All advanced wastewater pretreatment devices shall be installed in accordance with directions provided in the advanced wastewater pretreatment device manufacturer's installation manual and the approved system design.

4. The authorized installer shall be in possession of all necessary permits, approvals and licenses before attempting any portion of an installation. All documentation must be located at the installation site for the duration of the installation and made available upon request by the administrative authority or the Department.
5. The watertightness of any tanks specified in the design must be watertight tested at the installation site after the tank has been installed, in accordance with the same requirements identified for septic tanks at N.J.A.C. 7:9A-8.2(m).

(d) The following requirements are applicable for system start-up of any system containing an advanced wastewater pretreatment device:

1. The authorized service provider shall inspect the system following installation.
 - i. The authorized service provider shall complete a manufacturer's system start-up checklist; and
 - ii. The authorized service provider shall provide the completed start-up checklist to the administrative authority.
2. The authorized installer that installed the advanced wastewater pretreatment device shall be present at the time of start-up.

(e) The following requirements are applicable to the administrative authority that approved the installation of an advanced wastewater pretreatment device:

1. The administrative authority shall not approve any system incorporating an advanced wastewater pretreatment device unless all design, installation or maintenance documentation for any part of the proposed system has been received from the septic system designer.
2. All sites where an advanced wastewater pretreatment device has been installed shall be tracked to manage contact information, maintenance activities, and generate reports. The reports shall be submitted to the Department with the annual reports required at N.J.A.C. 7:9A-3.15 and shall provide the following information, at a minimum:
 - i. The type of advanced wastewater pretreatment devices installed;
 - ii. The location of each installed advanced wastewater pretreatment device;
 - iii. The type of use (for example residential or commercial);
 - iv. The type of disposal area (for example bed, trench, or drip dispersal);
 - v. The date when the advanced wastewater pretreatment device was installed and started up; and
 - vi. The date of each inspection/maintenance calls conducted.
3. The administrative authority shall not issue a certificate of compliance for any system incorporating an advanced wastewater pretreatment device unless a copy of a fully executed service contract has been received and the reporting information required in (e)2 above is recorded