

## **Requirements for Aerobic Treatment Unit (ATU)** **Approval in Florida**

Under Florida Law, the Florida Department of Health (the Department) regulates Onsite Sewage Treatment and Disposal Systems (OSTDS) and all their components installed in the State under Chapter 64E-6, Florida Administrative Code (FAC). Information on OSTDS regulations can be obtained by clicking on the following link to the [Onsite Sewage Program](http://www.floridahealth.gov/healthy-environments/onsite-sewage/index.html), or visiting our website at <http://www.floridahealth.gov/healthy-environments/onsite-sewage/index.html>.

An aerobic treatment unit (ATU) is a wastewater treatment unit that introduces air into sewage for more effective treatment. Typically, ATUs are composed of a treatment unit housed in a tank, which discharges to a drainfield. This document describes the product approval process for all ATUs based on Rules 64E-6.012 and 6.013, FAC. ATUs designed to treat up to 1500 gallons of sewage per day must be certified to NSF/ANSI Standards 40, 245, or 350 by a third party certifying program. Note that requirements for third party certifying programs are listed in 64E-6.012(1)(a) to (e), FAC. Treatment receptacles must be approved in the state of Florida.

After product approval, the local county health department (CHD) handles site-specific system construction permitting. An operating and maintenance contract is required for all ATUs.

Reasons to install an ATU may include:

- NSF Standard 245 ATUs are one of the treatment options to comply with Spring Basin Management Action Plans (BMAPs);
- the ATU provides treatment required for a 25% drainfield reduction (in slightly limited soils);
- a county ordinance requires ATUs in part of the county area; or
- the ATU provides required treatment for a drip irrigation system.

ATUs that are approved are posted to the Department's website at the links below.

- NSF Standard 40 ATUs: [http://www.floridahealth.gov/environmental-health/onsite-sewage/products/\\_documents/40cert-atu18.pdf](http://www.floridahealth.gov/environmental-health/onsite-sewage/products/_documents/40cert-atu18.pdf)
- NSF Standard 245 ATUs: [http://www.floridahealth.gov/environmental-health/onsite-sewage/products/\\_documents/245cert-atu-18.pdf](http://www.floridahealth.gov/environmental-health/onsite-sewage/products/_documents/245cert-atu-18.pdf)

Note that ATUs installed as part of a performance based treatment system (PBTS) for the purposes of reducing nitrogen for setback reductions under 64E-6.028(1) FAC and increased authorized sewage flows under 64E-6.028(2) FAC must be tested through the *innovative process*. When reviewing engineer-designed PBTS that only claim drainfield size reductions under 64E-6.028(4) FAC, the Department relies on CBOD/TSS data from NSF to assess performance claims (see Table 3 of [http://www.floridahealth.gov/environmental-health/onsite-sewage/products/\\_documents/pbts-components.pdf](http://www.floridahealth.gov/environmental-health/onsite-sewage/products/_documents/pbts-components.pdf)).

### **What documentation is required for the approval process?**

No fees or formal application form is required for ATU approval in Florida; however, the following documentation must be submitted to [Debby.Tipton@flhealth.gov](mailto:Debby.Tipton@flhealth.gov).

- Demonstration of ATU-compliance with Chapter 64E-6.012(2)(c), (i), (j) and (k) FAC:

- (c) A visual and audio warning device shall be installed in a conspicuous location so that activation of such warning device will alert property occupants of aerobic unit malfunction or failure. All warning devices shall be wired separately from the aerobic unit so that disconnecting the aerobic unit from electricity will activate the warning device. If installed outside, the alarm shall be waterproof.
- *Provide the electrical wiring diagram and describe how it works to comply with this requirement.*
  - *Confirm the alarm is waterproof, if installed outside.*
- (i) A manufacturer, distributor or seller of aerobic treatment units shall furnish, to the State Health Office, in Microsoft Word document format, Portable Document Format (PDF) or other electronic format accepted by the Department, a copy of the completion reports and engineering drawings showing the design and construction details of all models of approved Class I units to be constructed or installed under the provisions of this rule. The State Health Office will forward these reports and drawings to each DOH county health department. No aerobic unit shall receive final installation approval until the unit is found to be in compliance with all provisions of this rule, including compliance with design and construction details shown on the engineering plans filed with DOH county health departments and the State Health Office.
- *Provide an electronic copy of the third party testing report or reports to NSF Standard 40, 245 or 350.*
  - *Provide the most current version of the operations and maintenance manual for review for compliance with 64E-6, Florida Administrative Code.*
  - *Provide an upscale letter from the third party certifying program for models with treatment capacities greater than the model tested by the certified testing agency, if approval of higher treatment capacity units is being sought.*
- (j) Manufacturers shall provide a listing of approved maintenance entities they have authorized to provide service in the state and shall demonstrate that the entire state is covered by at least one maintenance entity. A system using a manufacturer's unit shall not be approved in the state if the manufacturer cannot demonstrate that there are maintenance entities to service it.
- *Provide a listing of approved maintenance entities and indicate that they will cover the entire state of Florida.*
- (k) A distributor of a specific manufacturer's brand or model of an approved aerobic treatment unit shall provide to the DOH county health department and State Health Office written assurance that spare mechanical and structural parts are available, upon request, for purchase, to all other approved maintenance entities.
- *Provide a parts list and a statement that these parts are available, upon request, to all other approved maintenance entities.*

In addition, the following must be submitted:

- Demonstration of treatment receptacle compliance with 64E-6.013, FAC.
  - *If Florida-approved treatment receptacles will be used, specify the approval number(s) of the tanks to be used. The list of approved treatment receptacles*

can be found here: <http://www.floridahealth.gov/environmental-health/onsite-sewage/products/documents/atu.pdf>.

- *If new treatment receptacles must be approved in the state of Florida. Rule 64E-6.013, FAC pertains to the construction materials and standards for treatment receptacles, including testing requirements. If tank approvals are required, let us know and we will forward information about the tank approval process.*
- Information about how air lines and electrical wires enter or exit the treatment receptacle. Rule 64E-6.013(9)(c)(1), (2), and (3), FAC. has specific requirements about how electrical wires can exit the receptacle:
  - (1) Through the tank outlet using plumbing fittings and reducers to produce a watertight seal,
  - (2) When risers are used, the electrical line and the effluent dosing pipe may penetrate the riser wall provided the penetration is above the wet season high water table elevation and there is a soil-tight seal around the penetrations.
  - (3) Through a 2 to 4-inch access port installed in the tank lid by the manufacturer as approved by the State Health Office. After installation, the port must be sealed with a bonding compound per paragraph 64E-6.013(2)(i), FAC. Unused ports shall be sealed watertight with cement or bonding compound or with a length of capped PVC pipe.
- *Review this section and indicate on your drawings that these requirements will be satisfied. Also indicate how the airline will enter the tank.*