

## Indiana Interpretation of **410 IAC 6-8.1:** **Tanks Fitted with Aeration Units for Aerobic Digestion**

[410 IAC 6-8.1, Residential Sewage Disposal Systems](#), allows for the use of tanks fitted with aeration units for aerobic digestion of sewage in residential onsite systems; these units are commonly referred to as aerobic treatment units (ATU). The use of this technology is addressed in *Sections 38(d)* and *39(q)* as described below. *Section 31(g)* allows the Indiana State Department of Health (department) to permit the use of new or more efficient sewage treatment processes; the use of secondary treatment systems (STS) is addressed in the [Indiana Standards for Secondary Treatment Systems](#).

### I. Requirements for new construction

- A. *Section 31(b)* requires that the design, construction, installation, location, maintenance and operation of all residential onsite systems comply with the provisions of [410 IAC 6-8.1](#).
- B. An ATU must:
  - 1. Conform to *Standard 40 of the National Sanitation Foundation* or to the standards of an equivalent testing laboratory [*Section 39(q)*];
  - 2. Provide a minimum treatment capacity of 150 gallons per bedroom per day or 500 gallons, whichever is greater [*Section 39(q)*];
  - 3. Be preceded by a septic tank [*Section 31(d)*] which meets all of the requirements of *Sections 37 through 40*; and
  - 4. Discharge:
    - a. To a soil absorption field (SAF); or
    - b. Other treatment system approved by the department [*Section 38(d)*].
- C. A SAF that receives effluent from an ATU must meet all of the requirements of [410 IAC 6-8.1](#), including size of the SAF. A SAF may not be reduced in size when an ATU is included in the design of a residential onsite system [*Section 31(b)*].

### II. Requirements for repair/replacement

- A. The provisions of [410 IAC 6-8.1](#) relating to system design and installation do not apply where repair/replacement is necessary due to system defect, failure or malfunction. The local board of health may use its best judgment on the design and installation of a repair/replacement system [*Section 33(a)*], provided that:
  - 1. The repair/replacement does not violate the provisions of *Section 31(a)*; and
  - 2. That no portion of a soil absorption system is constructed deeper than 48 inches below the ground surface.
- B. It is the determination of the department that a LHD may not apply best judgment [*Section 33(a)*] to waive the requirement of *Section 39(q)* (that tanks fitted with aeration units for aerobic digestion conform to *ANSI/NSF Standard 40, Residential Wastewater Treatment Systems* for Class I plants or to the standards of an equivalent testing laboratory).

- C. A LHD must also comply with the requirements of [Indiana Standards for Secondary Treatment Systems, Section VII.C](#), which requires:
1. All new components; or
  2. Documentation that each component proposed for reuse:
    - a. Is watertight and in good condition (using test procedures that comply with requirements of the department); and
    - b. Complies with size and product requirements in applicable sections of [410 IAC 6-8.1](#) and *standards* of the department.

### III. Provision for SAF size reduction with a secondary treatment system (STS)

The department approves secondary treatment systems (STS) for use in Indiana, under the provisions of *410 IAC 6-8.1-31(g)*, in the [Indiana Standards for Secondary Treatment Systems](#). These standards allow for a reduction in the size of the SAF when an STS is included in the onsite system.

### IV. Inspection and operation and maintenance (O&M)

A treatment unit allowed for in this interpretation, and a STS, require ongoing O&M to function properly. One of the requirements of *ANSI/NSF Standard 40, Residential Wastewater Treatment Systems* for Class I plants is that the manufacturer of the treatment unit, or its authorized representative, include a 2-year initial service policy in the original purchase price of the treatment unit. Nonetheless, **it is important that LHDs have in-place local ordinances, policies and procedures for enforcement of O&M requirements so that necessary O&M takes place regularly over the lifetime of the treatment unit.**

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