



Indiana Standards for Secondary Treatment Systems

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Indiana Standards for Secondary Treatment Systems

These standards apply to secondary treatment systems (STS) [see list of Indiana approved STS listed on Indiana State Department of Health (department) website, [insert HYPERLINK](#)]. System integrators (SI) of STS not recognized under these standards may submit a STS for review by the department.

These standards apply to all onsite systems with a daily design flow (DDF) \leq 1050 gpd. For onsite systems with a DDF $>$ 1050 gpd, plans and specifications must be submitted to the department for review and approval (see *Section III.A*). Contact the department for design requirements for recirculating gravel filters and subsurface constructed wetlands.

I. Definitions

Authorized Designer: A person, often an installer, authorized by a system integrator (SI) in compliance with the requirements of the department, who incorporates a secondary treatment system from a SI into the design of an onsite system for a residential or commercial site.

Authorized Installer: A person, authorized by a system integrator (SI) in compliance with the requirements of the department, who installs an onsite system designed by an authorized designer.

Authorized Representative: An authorized representative is an authorized designer, authorized installer, or authorized service provider of a system integrator (SI).

Authorized Service Provider: A person, authorized by a SI in compliance with the requirements of the department, who services an onsite system installed by an authorized installer.

Secondary Treatment System (STS): Treatment system described in this standard.

Onsite System: All equipment and devices necessary for proper onsite conduction, collection, storage, and treatment of sewage, and absorption of sewage in soil, from a residence or commercial facility.

System Integrator (SI): A company that combines several components and ensures that the components function together as a system. A SI looks at the whole picture (system), complies with regulatory requirements, incorporates industry best practices into component selection, and considers all details necessary to make the system work. A SI provides the following services:

1. Develops a system that complies with regulatory requirements;
2. Integrates components into a whole functioning system;
3. Provides drawings to scale of all components and the entire system;
4. Coordinates with equipment manufacturers;
5. Prepares and provides components list;
6. Prepares and provides purchase pricing for customers;
7. Authorizes designers, installers, and service providers;
8. In coordination with its authorized representatives, provides site visits to troubleshoot and diagnose system malfunctions and provide solutions; and
9. Maintains responsibility for management of all systems designed, installed, and serviced by its authorized representatives.

II. Approval of secondary treatment systems (STS)

- A. The department:
 - 1. Reviews, approves, and lists secondary treatment systems (STS) when system integrators (SI) demonstrate they meet or exceed the requirements in the *standards* of the department; and
 - 2. Removes STS from lists when performance is determined to be unacceptable. The department will inform a SI, in writing, prior to taking this action.
- B. The department lists approved STS on its website, **insert HYPERLINK**.
 - 1. Any changes, modifications, or substitutions of components, materials, products, or specifications to a listed STS must be submitted by the SI and approved by the department prior to the change, modification, or substitution.
 - 2. Products in a manufacturer's product line that are included in an approved STS are approved for use only in the approved STS.
- C. A SI must submit proposed changes to the design, installation, or operation and maintenance (O&M) procedures of an approved STS, and a schedule for implementing recommended changes, for review and consideration for approval by the department.

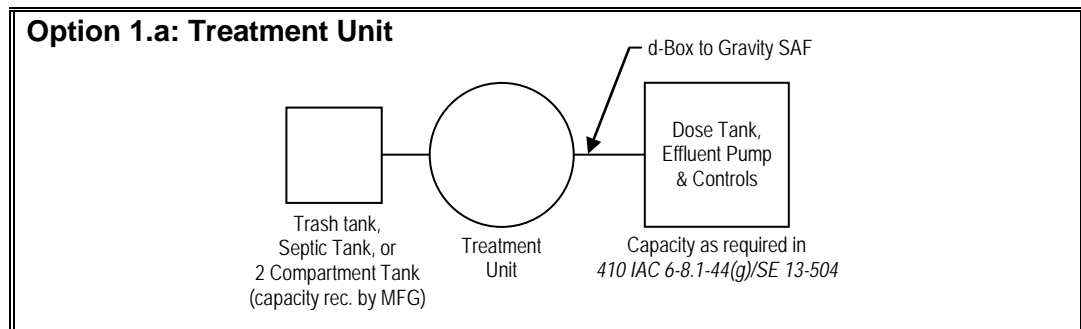
III. Requirements for system integrators (SI)

- A. Components and materials in an approved secondary treatment system (STS) must perform according to manufacturer and SI performance requirements and the requirements of these *standards*.
- B. A SI must present and have a program plan reviewed and accepted by the department for:
 - 1. The training and biennial authorizing of designers, installers, and service providers (see *Subsection C* for detailed requirements);
 - 2. The ongoing O&M of STS (see *Subsection D* for detailed requirements);
 - 3. Investigating complaints; and
 - 4. Removing designers, installers, and service providers from authorized lists when performance is determined to be unacceptable.
- C. Requirements for a SI training and authorization program.
 - 1. Designers, installers, and service providers must:
 - a. Be trained in accordance with the SI training program;
 - b. Be authorized, and reauthorized biennially, in accordance with the SI authorizing program before they may design, install or service an approved STS.
 - 2. A SI must:
 - a. Provide refresher training, as necessary, for authorized designers, installers, and service providers whose performance is below expectations; and
 - b. Provide regulators and authorized designers, installers and service providers ongoing oversight and consultation, as needed.
 - 3. A SI must remove from its authorized list any designer, installer, or service provider who continues to perform below performance expectations after refresher training required in *Subdivision 2.a*.
 - 4. The department must be notified by the SI of any scheduled training event at least 10 working days prior to the event.
 - 5. Each SI must provide the department and LHDs with an up-to-date list quarterly, in a data format approved by the department, of:
 - a. Individuals trained, authorized and reauthorized for the design, installation or service of STS in Indiana as required in *Section B.1*; and
 - b. LHD staff trained on STS.

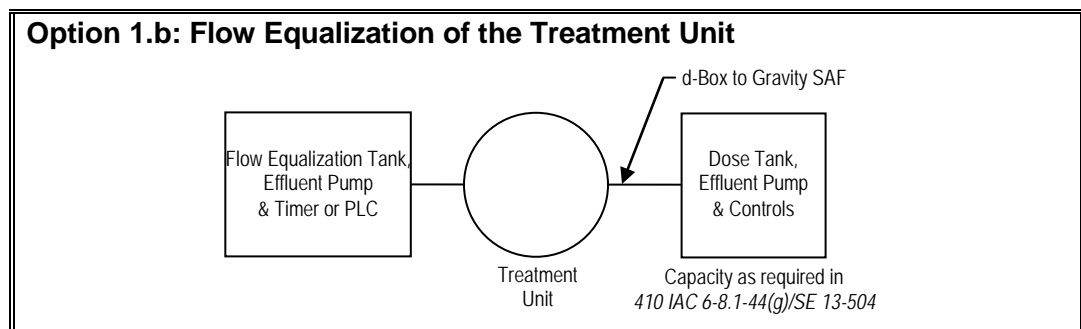
- D. Requirements for a SI O&M program.
1. Authorized service providers must:
 - a. Have, and know how to operate equipment necessary to assess and adjust the operation of all components as necessary to bring a STS into compliance with the SI O&M program;
 - b. Check wastewater level in all tanks and verify proper operation of float and alarm functions;
 - c. Verify that all tank risers and lids are in good condition and risers are watertight;
 - d. Verify that all box risers and lids are present and in good condition;
 - e. Visually inspect the soil absorption field (SAF) at least once per year or at the time of maintenance, whichever is less, for signs of effluent on the ground surface, with the results documented in the O&M report; and
 - f. Notify the department and LHD if an onsite system shows signs of failure as defined in *410 IAC 6-8.1-8* or *410 IAC 6-10-3*.
 2. Documentation of O&M of installed STS must be in accordance with the SI O&M program by the authorized service provider for scheduled and unscheduled O&M.
- E. Each SI must submit a report to the department and to LHDs for the counties in which STS are installed by March 31st of each year. The report must contain the following information for the previous calendar year:
1. Data recorded in an electronic format approved by the department:
 - a. On a one-time basis for each STS installed:
 - 1) County;
 - 2) County ID number for property;
 - 3) Name of owner;
 - 4) Address for property;
 - 5) The type of use (i.e., residential or commercial);
 - 6) If commercial property, name of concern;
 - 7) Local health department;
 - 8) Permit number;
 - 9) Soil absorption field type;
 - 10) Name and model of the treatment unit;
 - 11) Date of system start-up; and
 - 12) Identification of:
 - a) The authorized designer; and
 - b) The authorized installer.
 - b. Annually for each STS serviced, including:
 - 1) Scheduled and unscheduled O&M with reports; and
 - 2) Identification of the authorized service provider.
 2. All known problems, shortcomings, or failures of STS with a summary of the cause and remedial measures taken.
- F. The SI or authorized representative must provide the owner a copy of:
1. The O&M agreement; and
 2. All manufacturer warranty information for each component of the STS.
- G. Each SI or authorized representative must report to the department and LHD failure of an owner to renew an O&M agreement within 30 days of non-renewal.

IV. Requirements for secondary treatment systems (STS)

- A. A SI may propose a STS design to the department for consideration that differs from the options described in *Subsection D*.
- B. For onsite systems with a subsurface drip system (SDS) soil absorption field (SAF), a programmable logic controller (PLC) must be used to dose the SAF.
- C. For a commercial facility that generates actual effluent flows over a single work shift or over a 1, 2, or 3 day period each week, flow equalization of the secondary treatment unit, with sufficient capacity to equalize actual flows, is required. Calculations for the maximum volume of liquid stored for flow equalization must include actual effluent flows summed over the peak flow period.
- D. The options that follow are for onsite systems with a DDF ≤ 1050 gpd.
 - 1. For SAF described in *410 IAC 6-8.1, Residential Sewage Disposal Systems* or *410 IAC 6-10, Commercial Onsite Wastewater Disposal*, one of the following options.
 - a. Option 1.a: Treatment Unit

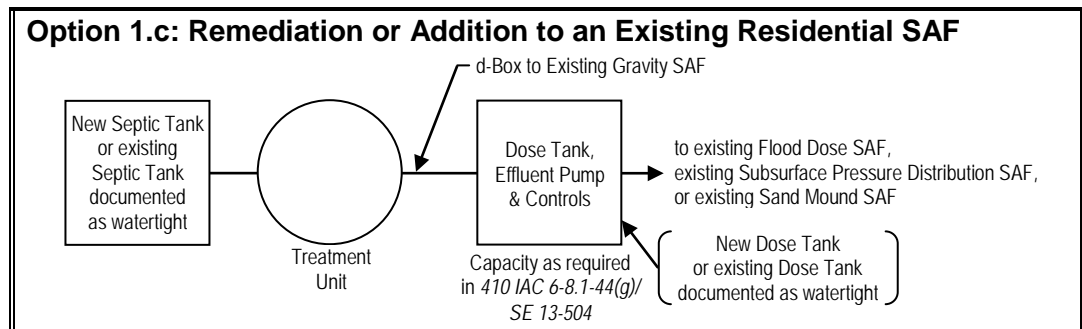


- 1) A septic tank, a two compartment septic tank, or a trash tank preceding the treatment unit with at least the capacity recommended by the manufacturer of the treatment unit required in *Subsection F*.
- 2) For a gravity SAF, a distribution box (d-box).
- 3) For a flood dose, subsurface pressure distribution, or sand mound SAF, a tank following the treatment unit with:
 - a) A capacity as required in *410 IAC 6-8.1-44(g)* or *Bulletin SE 13-504*, whichever is applicable;
 - b) A wastewater grade effluent pump; and
 - c) Controls to dose the SAF using demand dosing.
- b. Option 1.b: Flow Equalization of the Treatment Unit



- 1) A flow equalization tank preceding the treatment unit required in *Subsection F* with:

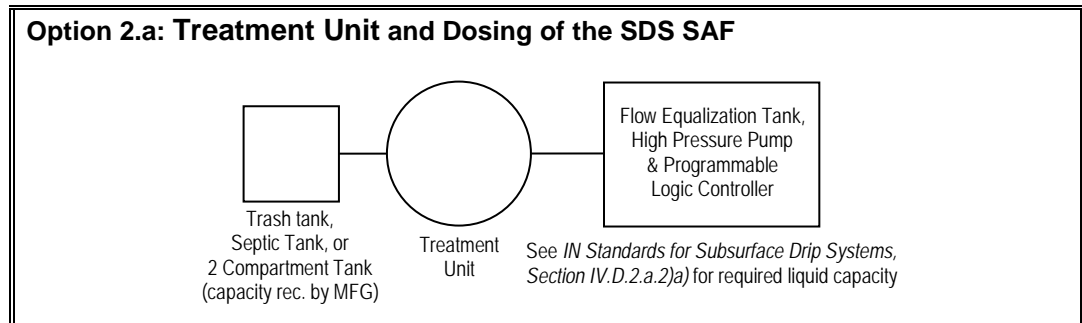
- a) A minimum capacity of the sum of:
 - i) The volume of liquid from the tank bottom to the off-float necessary to submerge the effluent pump during operation;
 - ii) The volume of liquid between the off-float and the timer enable float of ≥ 0.10 DDF;
 - iii) For flow equalization of the treatment unit, the volume of liquid between the enable float and the alarm float of ≥ 1 DDF;
 - iv) The volume of liquid between the alarm float and the invert of the inlet of ≥ 0.35 DDF;
 - b) A wastewater grade effluent pump;
 - c) A timer or PLC to equalize flows, as recommended by the manufacturer, to the treatment unit; and
 - d) A wide angle enable float for the timer or PLC.
- 2) For a gravity SAF, a distribution box (d-box).
 - 3) For a flood dose, subsurface pressure distribution, or sand mound SAF, a tank following the treatment unit that complies with the requirements of *Subsection D.1.a.3*).
- c. Option 1.c: Remediation or Addition to an Existing Residential SAF



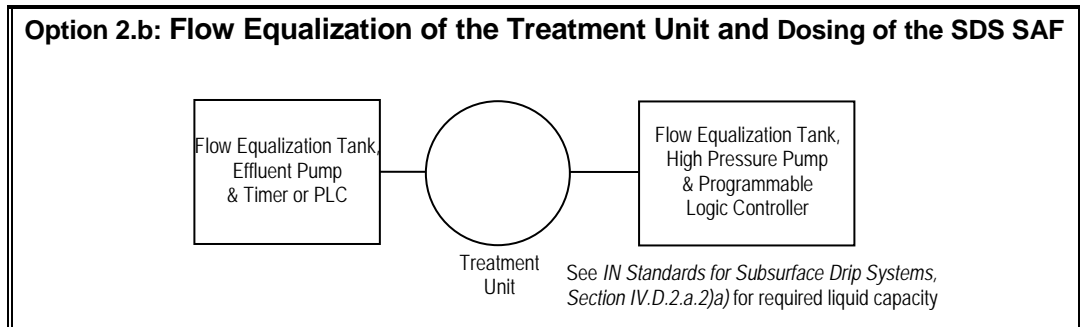
This option may be used for an existing residential onsite system in an attempt to remediate a SAF that shows signs of failure, or to an existing residential onsite system that does not show signs of failure. This option is strongly discouraged when it includes the use of existing components (see *Section VII.C*).

Option 1.c allows for the installation of a treatment unit allowed for in *Subsection F* between a septic tank and an existing SAF. If an existing tank is abandoned, it must be abandoned in a manner that complies with the requirements of the department.

2. For an onsite system described in *Indiana Standards for Subsurface Drip Systems* one of the following options.
 - a. Option 2.a: Treatment Unit and Dosing of the SDS SAF



- 1) A septic tank, a two compartment septic tank, or a trash tank preceding the treatment unit with at least the capacity recommended by the manufacturer of the treatment unit required in *Subsection F*.
 - 2) A flow equalization tank following the treatment unit with:
 - a) A minimum capacity of the sum of:
 - i) The volume of liquid from the tank bottom to the off-float necessary to submerge the high pressure effluent pump during operation;
 - ii) The volume of liquid of 1.5 to 2 times the dose volume of the largest zone in the SDS SAF plus drainback (if applicable), or the volume of liquid of 1.5 to 2 times the flush volume of the zone with the most lateral connections plus drainback (if applicable), whichever is greater, from the off-float to the timer enable float;
 - iii) The volume of liquid of 0.6 DDF from the timer enable float and the peak flow float;
 - iv) The volume of liquid of 0.2 DDF from the peak flow float to the alarm float;
 - v) The volume of liquid between the alarm float and the invert of the inlet of ≥ 0.35 DDF;
 - b) A wastewater grade high pressure effluent pump;
 - c) A PLC with a dose scheme as required in the *Indiana Standards for Subsurface Drip Systems*; and
 - d) A wide angle enable float for the PLC.
- b. Option 2.b: Flow Equalization of the Treatment Unit and Dosing of the SDS SAF



- 1) A flow equalization tank preceding the treatment unit required in *Subsection F* that complies with the requirements of *Subsection D.1.b.1*).
 - 2) A flow equalization tank following the treatment unit that complies with the requirements of *Subsection D.2.a.2*).
- E. The manufacturer or designer of the treatment unit described in *Subsection F*, for the application described in *Subsections D.1.b and D.2.b*, must specify the type of pump and the operating parameters of the pump used for dosing the treatment unit.
- F. A STS must include a treatment unit:
1. That conforms to *ANSI/NSF Standard 40, Residential Wastewater Treatment Systems* for Class I plants, maintain a current product listing with an ANSI accredited third party certifier, bear a listing mark, and provide a treatment capacity \geq DDF for the onsite system; or
 2. Approved by the department that provide:
 - a. A treatment capacity \geq DDF for the onsite system; and

- b. Effluent that meets or exceeds the quality of effluent requirements in *ANSI/NSF Standard 40, Residential Wastewater Treatment Systems* for Class I plants.
- G. Mechanical aeration units with treatment capacities \leq 1500 gpd must comply with the requirements of *Subsection F. 1*.
- H. For *ANSI/NSF Standard 40, Residential Wastewater Treatment Systems* for Class I plants, the manufacturer of the unit, or authorized representative, must include a 2-year initial service policy in the original purchase price of the unit.
- I. See *Indiana Interpretation of 410 IAC 6-8.1: Tanks Fitted with Aeration Units for Aerobic Digestion* for information on the use of aerobic treatment units (ATUs) under the provisions of *410 IAC 6-8.1-38(d) and 39(q)*.

V. Requirements for plan submittal, review, and construction permit issuance

- A. A plan submittal for an individual site must comply with:
 - 1. These *standards*, and applicable sections of *410 IAC 6-8.1, Residential Sewage Disposal Systems, 410 IAC 6-10, Commercial Onsite Wastewater Disposal, Bulletin S.E. 13, Onsite Water Supply and Wastewater Disposal for Public and Commercial Establishments*, and applicable *standards* of the department;
 - 2. Local ordinances, requirements and procedures for onsite systems;
 - 3. Requirements of an approved and listed secondary treatment system (STS); and
 - 4. *IC 16-41-25-3*.
- B. A plan submittal for an onsite system with a DDF $>$ 1050 gpd and an approved STS must be reviewed and approved by the department.
- C. A plan submittal for an onsite system with a DDF \leq 1050 gpd and an approved STS must be reviewed and approved by:
 - 1. The department; or
 - 2. The LHD when the department delegates authority, in writing, to LHD staff member(s) for plan review and approval:
 - a. Delegation is automatically rescinded if the staff member(s) to which delegation was granted leave employment with the LHD onsite program and the LHD has no remaining onsite program staff delegated responsibility for plan review and approval;
 - b. Delegation may be revoked upon documentation that the LHD program is not operating in compliance with *410 IAC 6-8.1, 410 IAC 6-10*, or *standards* set by the department, or provisions of the delegation;
 - c. If delegation is revoked, the department will notify the LHD, in writing, stating reason(s) for revocation and criteria for delegation to be reinstated.
- D. An approval or construction permit may not be issued by the department or LHD, whichever has authority as described in *Subsection C*, without training and authorization of authorized representatives as required in *Section III.C.1*.
- E. The department or LHD, whichever has authority as described in *Subsection B*, may suspend or revoke an approval or construction permit prior to or during installation of an onsite system due to violation of these *standards*.
- F. The following 5 *sections* contain specific requirements in the plan submittal, review and construction permit issuance process for:
 - 1. Owners;
 - 2. Regulators;
 - 3. Authorized designers;
 - 4. Authorized installers; and
 - 5. Authorized service providers.

VI. Requirements for owners

- A. The owner must:
 - 1. Have a signed O&M agreement with an authorized service provider, prior to construction permit issuance, that commences at the time the secondary treatment system (STS) is placed into operation; and
 - 2. Maintain an O&M agreement with an authorized service provider during the life of the STS.
- B. Prior to the start of construction, the owner, or authorized representative of the owner, must:
 - 1. Obtain a written approval from the department, unless plan review and approval has been delegated to the LHD, as described in *Section V.C*; and
 - 2. Obtain a written permit from the LHD.
- C. After installation:
 - 1. Staff of the department and LHD may make observations of the onsite system at reasonable times; and
 - 2. The owner must notify the department and LHD if the onsite system shows signs of failure as defined in *410 IAC 6-8.1-8* or *410 IAC 6-10-3*.

VII. Requirements for regulators

LHDs are strongly encouraged to have in-place local ordinances, policies and procedures for enforcement of O&M requirements.

- A. Before a regulator may issue a construction permit for an onsite system incorporating a secondary treatment system (STS), the STS must be approved by the department.
- B. When a plan submittal for the repair/replacement of a residential onsite system includes a STS, and the LHD applies the provision for best judgment in *410 IAC 6-8.1-33(a)*, the LHD must inform the department, in writing, prior to issuing a construction permit.
- C. For a plan submittal with a proposal to replace or remediate a soil absorption field (SAF), or to add an STS to an existing residential onsite system, a regulator must:
 - 1. Require all new components; or
 - 2. Require that, for onsite system components proposed for reuse, the owner, or authorized representative of the owner, document that each component:
 - 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*, *410 IAC 6-10*, *Bulletin S.E. 13*, and *standards* of the department.
- D. A LHD may require an owner to record a deed restriction or notice with the deed that identifies the STS and the requirement for an O&M agreement required in *Section VI.A*.
- E. After installation:
 - 1. The department or LHD, whichever has authority for plan review and approval as described in *Section V.C*, must conduct a final inspection.
 - 2. A final inspection may not be based on a statement by an authorized installer that the onsite system having a STS was installed as designed.
 - 3. The department and LHD must maintain documentation on the final inspections their staff conducts.
- F. When a STS is specified in the plans for an onsite system, a regulator may allow:
 - 1. A reduction in the size of a SAF, except for SAF allowed for in the *Indiana Standards for Enviro-Septic® Soil Absorption Field Technology*, *Indiana Standards for*

Subsurface Drip Systems, and department approvals for the use of gravelless pipe SAF technology, as follows:

- a. By up to $\frac{1}{3}$ for a SAF site with a soil load rate of $< 0.50\text{gpd/ft}^2$;
 - b. By up to $\frac{1}{2}$ for a SAF site with a soil load rate of $\geq 0.50\text{gpd/ft}^2$; and
 - c. For SAF allowed for in *Indiana Standards for Chamber Trench Soil Absorption Field Technology*, the SAF may be reduced in size as allowed for in *Subdivisions 1.a and b*, **or** as allowed for the *Indiana Standards for Chamber Trench Soil Absorption Field Technology*, **but not both**.
2. The dispersal area for a SAF to be sized as provided for in this subdivision.
- a. Requirements for all dispersal areas:
 - 1) For all SAF sites, the minimum dispersal area width must be at least 10' and need not exceed 25';
 - 2) A dispersal area must:
 - a) Be located on the property of the owner of the onsite system or, with a recorded easement, on an adjoining property;
 - b) Not be located in a closed depression, or in an area subject to ponding, where surface runoff or subsurface water movement may adversely affect the performance of the onsite system;
 - 3) For a SAF on a site with a slope $> \frac{1}{2}\%$, no part of the dispersal area may slope toward the SAF;
 - 4) During construction of an onsite system, the soil in a dispersal area must not be compacted; and
 - 5) No buildings, foundations, slabs, garages, patios, barns, above and below ground swimming pools, retaining walls, roads, driveways, parking areas, or paved sidewalks are allowed in a dispersal area.
 - b. In addition to the dispersal area requirements in *Subdivision 2.a*, the provisions of *Subdivision 2.c* must be applied when a SAF site meets the following criteria:
 - 1) The soil load rate used to determine the size of the SAF is 0.5 gpd/ft^2 or less; or
 - 2) There is a horizon in the upper 60" of the soil profile description with:
 - a) Bedrock;
 - b) Densic material;
 - c) Dense till;
 - d) Layers transitional to dense till;
 - e) Soil with fragic soil properties; or
 - f) A B, BC, or CB horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a 10% hydrochloric acid solution.
 - c. When a SAF site meets the criteria of *Subdivision 2.b*, the dispersal area width must be the following:
 - 1) For a SAF with a slope $\leq \frac{1}{2}\%$, a dispersal area width described in *Figure 1* must be maintained on each side of the SAF:
 - a) From the outside edge of the outer trench or dripline parallel to the length of the trench or dripline; or
 - b) From the outside edge of the Indiana Department of Transportation, 1999 *Standard Specifications, Specification 23 for Fine Aggregate (INDOT Specification 23 sand)* and parallel to the long axis of an elevated sand mound or Enviro-Septic[®] SAF; and

- 2) For a SAF with a slope > ½%, a dispersal area width as described in *Figure 1* must be maintained on the downslope side of the SAF:
 - a) From the outside edge of the downslope trench or dripline parallel to the length of the trench or dripline; or
 - b) From the outside edge of the *INDOT Specification 23* sand downslope and parallel to the long axis of an elevated sand mound or Enviro-Septic® SAF.

Figure 1 Dispersal Area¹ Width	
Slope ≤ ½%: ²	
Onsite system w/o perimeter drain	≥ ¼ width of soil absorption field ⁵
Slope > ½%: ³	
Onsite system w/o perimeter drain	≥ ½ width of soil absorption field ⁵
Any Slope: Onsite system w/ perimeter drain ⁴	10 ft.
¹ No buildings, foundations, slabs, garages, patios, barns, above and below ground swimming pools, retaining walls, roads, driveways, parking areas, or paved sidewalks are allowed in the dispersal area. ² Dispersal area is located on each side of the outside edge of the outer trench or dripline parallel to the length of the trench or dripline, or on each side of the outside edge of the basal area and parallel to the long axis of an elevated sand mound or Enviro-Septic® SAF. ³ Dispersal area is located on the downslope side of the outside edge of the outer trench or dripline parallel to the length of the trench or dripline, or on each side of the outside edge of the basal area and parallel to the long axis of an elevated sand mound or Enviro-Septic® SAF. ⁴ For onsite systems with a subsurface perimeter drain without a seasonal high water table, the design and construction of the drain must comply with <i>Indiana Standards for Drainage Systems</i> . ⁵ Dispersal area width must be ≥ 10'; a dispersal area width > 25' is not required.	

VIII. Requirements for authorized designers

- A. Plans for an onsite system having a secondary treatment system (STS) must:
 1. Be designed by an authorized designer;
 2. Be drawn to scale;
 3. Include an approved STS as listed on the department website, **insert HYPERLINK**.
- B. The authorized designer must determine if the regulator is applying the provisions of *Section VII.F* before beginning design of the onsite system.
- C. Only sewage as defined in *410 IAC 6-8.1-23* or wastewater as defined in *410 IAC 6-10-2*, whichever is applicable, may be discharged to a STS. When water softening equipment is used, and the manufacturer of the treatment unit required *Section IV.F* recommends that water softener backwash not be discharged to the treatment unit, one of the following options may be employed:
 1. Use of an exchange-tank (canister-type) water softener, where a service provider periodically replaces a resin canister for recharging; or
 2. Bypassing the treatment unit and discharge the water softener backwash to:

- a. The effluent sewer on the downstream side of the treatment unit;
 - b. The dose tank serving the soil absorption field (SAF), or
 - c. A separate SAF trench constructed specifically for the water softener backwash.
- D. Specifications for an onsite system having a STS must:
- 1. Specify that soil plasticity tests be conducted by the authorized installer prior to installation of the SAF, and include the wording in *Section IX.A*; and
 - 2. List all components of the STS.

IX. Requirements for authorized installers

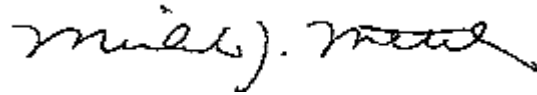
- A. An onsite system soil absorption field (SAF) must not be constructed during periods when the soil is sufficiently wet to exceed its plastic limit. **Before installation of the SAF, the authorized installer must perform, and the soils must pass, soil plasticity tests.** Soil plasticity tests include the evaluation of soil samples throughout the SAF site, from the surface to the depth of installation, to assure that the plastic limit of the soil is not exceeded. The plastic limit of a soil is exceeded when the soil can be rolled between the palms of the hands to produce threads one-eighth (1/8) inch in diameter that do not easily break apart or crumble.
- B. An onsite system having a secondary treatment system (STS), when installed, must comply with the requirements of the construction permit and approval letter (if applicable), and the approved plans. Any changes, alterations, or additions that deviate from the construction permit or approved plan must be approved by the following prior to construction:
- 1. If plan review and approval has not been delegated to the LHD as provided for in *Section V.C*, the department and the LHD; or
 - 2. If plan review and approval has been delegated to the LHD as provided for in *Section V.C*, the LHD.
- C. Prior to construction, the authorized installer must protect the SAF site from construction traffic (that may cause soil compaction);
- D. During installation, an authorized installer must:
- 1. Be present at all times; and
 - 2. Directly supervise all work.
- E. During installation, the authorized installer must:
- 1. Insure that all connections and tank risers are watertight;
 - 2. If an onsite system for a replacement SAF utilizes existing components, document that each component is watertight, in good condition, and complies with size and product requirements as required in *Section VII.C.2*.
 - 3. Protect STS components against the entry of construction debris and soil materials during installation of the system; and
 - 4. Through final grading, insure that surface water flows away from access lids and the SAF.
- F. After installation the authorized installer must notify the department or LHD, whichever has authority for plan review and approval as described in *Section V.C* to schedule a final inspection.

X. Requirements for authorized service providers

- A. Operation and maintenance (O&M) of a secondary treatment system (STS) must be performed by an authorized service provider according to the requirements in the SI O&M program.

- B. O&M of a STS must be documented in accordance with the SI O&M program by an authorized service provider for scheduled and unscheduled O&M.
- C. Authorized service providers must have and know how to operate equipment necessary to assess and adjust the operation of all components as necessary to bring the STS into compliance with the SI O&M program.

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