

1 ARTICLE 6. SANITARY ENGINEERING

2
3 Rule 10.1. Commercial On-Site Sewage Systems

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5 SECTION 1. 410 IAC 6-10.1-5.1 IS ADDED TO READ AS FOLLOWS:

6
7 **410 IAC 6-10.1-5.1 "Base flood elevation" defined**

8 Authority: IC 16-19-3-4

9 Affected: IC 16-19-3-4

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11 Sec. 5.1. "Base flood elevation" or "BFE" means the elevation of the surface water resulting from a flood for which
12 there is a one percent (1%) probability of equaling or exceeding that level in any given year as calculated by a method and
13 procedure that is approved by the Indiana natural resources commission. The base flood elevation is also referred to as
14 the regulatory flood elevation or the one hundred (100) year flood elevation.

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16 *(Indiana Department of Health; 410 IAC 6-10.1-5.1)*

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18 SECTION 2. 410 IAC 6-10.1-5.2 IS ADDED TO READ AS FOLLOWS:

19
20 **410 IAC 6-10.1-5.2 "Best judgment" defined**

21 Authority: IC 16-19-3-4

22 Affected: IC 16-19-3-4

23
24 Sec. 5.2. "Best judgment" means the process by which the department reviews the site and soil evaluation report and site
25 characteristics in a situation where a commercial on-site sewage system has failed, and a replacement soil absorption
26 system cannot meet the requirements of this rule for new construction. The department may use their best judgment to
27 approve deviations from this rule on a case-by-case basis to permit the optimal approach to soil absorption system
28 replacement that meets the requirements of this rule to the greatest extent possible.

29
30 *(Indiana Department of Health; 410 IAC 6-10.1-5.2)*

31
32 SECTION 3. 410 IAC 6-10.1-5.3 IS ADDED TO READ AS FOLLOWS:

33
34 **410 IAC 6-10.1-5.3 "Cesspool"**

35 Authority: IC 16-19-3-4

36 Affected: IC 16-19-3-4

37
38 Sec. 5.3. "Cesspool" means a relatively shallow underground reservoir from which effluent seeps out of the
39 sidewalls. A cesspool is typically not preceded by a septic tank.

40
41 *(Indiana Department of Health; 410 IAC 6-10.1-5.3)*

42
43 SECTION 4. 410 IAC 6-10.1-8 IS AMENDED TO READ AS FOLLOWS:

44
45 **410 IAC 6-10.1-8 "Commercial on-site sewage system" or "on-site sewage system" defined**

46 Authority: IC 16-19-3-4

47 Affected: IC 16-19-3-4

48
49 Sec. 8. "Commercial on-site sewage system" or "on-site sewage system" means all equipment and devices necessary for
50 proper conduction, collection, storage, and on-site treatment and dispersal, ~~and on-site disposal~~ of sewage from other than
51 one-family or two-family dwellings, except where such dwellings are connected to a cluster system. However, an on-site sewage
52 system serving two (2) single-family dwellings on the same property, with a combined DDF of less than or equal to seven hundred
53 fifty (750) gallons per day, is a residential on-site sewage system, not a commercial on-site sewage system. ~~Included within,~~ **The**
54 **term includes,** but is not limited to, the scope of this definition are building sewers, effluent sewers, force mains, manholes, lift

55 **stations** grease traps, septic tanks, **secondary treatment units**, dosing tanks, **effluent pumps, sewage pumps, distribution**
56 **boxes, soil** absorption fields, **surface diversions, perimeter drains, subsurface drainage systems, dispersal areas, sewage**
57 **holding tanks, and sanitary** vault privies, ~~and temporary sewage holding tanks~~ **The term also includes any miscellaneous**
58 **components as may be required to ensure proper operation and function of the systems as described in this rule, serving**
59 such facilities as the following:

- 60 (1) Apartment buildings.
- 61 (2) Campgrounds.
- 62 (3) Churches.
- 63 (4) Commercial establishments.
- 64 (5) Condominiums.
- 65 (6) Medical facilities.
- 66 (7) Mobile home parks.
- 67 (8) Motels.
- 68 (9) Office buildings.
- 69 (10) Restaurants.
- 70 (11) Schools.

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72 *(Indiana Department of Health; 410 IAC 6-10.1-8; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
73 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
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75 SECTION 5. 410 IAC 6-10.1-8.1 IS ADDED TO READ AS FOLLOWS:

76
77 **410 IAC 6-10.1-8.1 “Commercial on-site sewage system expansion” defined**

78 **Authority: IC 16-19-3-4**

79 **Affected: IC 16-19-3-4**

80
81 **Sec. 8.1. “Commercial on-site sewage system expansion” means the addition of a system component or**
82 **components, or an increase in the size of a soil absorption system, to try to prevent, stop, or abate a commercial on-site**
83 **sewage system failure or to increase the capacity of the system without an increase in the design daily flow of the structure**
84 **or structures to be served.**

85
86 *(Indiana Department of Health; 410 IAC 6-10.1-8.1)*

87
88 SECTION 6. 410 IAC 6-10.1-9 IS AMENDED TO READ AS FOLLOWS:

89
90 **410 IAC 6-10.1-9 "Commercial on-site sewage system failure" defined**

91 **Authority: IC 16-19-3-4**

92 **Affected: IC 16-19-3-4**

93
94 **Sec. 9. "Commercial on-site sewage system failure" means a commercial on-site sewage system that exhibits at least one**
95 **(1) or more** of the following:

- 96 (1) The on-site sewage system refuses to accept sewage at the rate of design application thereby interfering with the
97 normal use of commercial plumbing fixtures.
- 98 (2) Effluent discharge exceeds the absorptive capacity of the soil, resulting in ponding, seepage, or other discharge of the
99 effluent to the ground surface or to surface waters.
- 100 (3) Effluent is discharged from the on-site sewage system causing contamination of a potable water supply, ground water,
101 or surface waters, **or is discharged to something other than a soil absorption field.**
- 102 **(4) A commercial facility with plumbing that is not connected to a sanitary sewer and**
103 **(A) does not have a commercial on-site sewage system as defined herein; or**
104 **(B) is not a facility that operates under an NPDES permit issued in accordance with 327 IAC 2; or**
105 **(C) is not a facility that has a land application permit in accordance with 327 IAC 6.1.**
- 106 **(5) Sewage or effluent discharged to a drywell or cesspool.**

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108 A failed commercial on-site sewage system is a **public and an** environmental health hazard.

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(Indiana Department of Health; 410 IAC 6-10.1-9; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 7. 410 IAC 6-10.1-9.1 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-9.1 "Commercial on-site sewage system malfunction" or "malfunction" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 9.1. "Commercial on-site sewage system malfunction" or "malfunction" means a commercial on-site sewage system component that is not functioning in accordance with this rule or per manufacturers' requirements. Commercial on-site sewage system malfunction does not have to meet the definition of commercial on-site sewage system failure, but there may also be failure. Malfunction may include, but is not limited to, at least one (1) ~~or more~~ of the following:

- (1) The backup of sewage into an upstream on-site sewage system component;
- (2) The liquid level in a septic tank above the invert of the septic tank outlet;
- (3) An outlet filter that is plugged sufficiently to cause backup in the septic tank;
- (4) The liquid level in a dosing tank above the level of the pump **on activation** float;
- (5) The liquid level in a treatment unit above that recommended by the manufacturer;
- (6) The liquid level in a distribution box consistently above the invert of the outlets;
- (7) A distribution box that does not provide equal distribution;
- (8) Structural failure of a septic tank, dosing tank, treatment unit, distribution box or other required component;
- (9) Electrical failure of any electrical component of an on-site sewage system, or
- (10) Removal of any system component required in the construction or operating permit.

(Indiana Department of Health; 410 IAC 6-10.1-9.1)

SECTION 8. 410 IAC 6-10.1-9.2 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-9.2 "Commercial on-site sewage system repair" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 9.2. "Commercial on-site sewage system repair" means **an** activity undertaken to replace or modify **an** existing component or components of an existing on-site sewage system. The repair may include, but is not limited to, **the addition, repair, or replacement of a component or components:**

- (1) such as a tank, a sewer pipe, an effluent pump, etc.; or**
 - (2) of the existing soil absorption system, such as a pipe, a chamber, or a distribution box.**
- Commercial on-site sewage system repair does not include routine maintenance of the system.

(Indiana Department of Health; 410 IAC 6-10.1-9.2)

SECTION 9. 410 IAC 6-10.1-9.3 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-9.3 "Commercial on-site sewage system replacement" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 9.3. "Commercial on-site sewage system replacement" means **an** activity undertaken to **install** a soil absorption system **in the case of system failure**. Commercial on-site sewage system replacement may also include adding, replacing, or repairing of any other system component or components **needed for the system to comply with this rule. In accordance with this rule, the best judgment of the department may be used, when necessary and appropriate, for the replacement of a soil absorption system in a failing commercial on-site sewage system.**

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(Indiana Department of Health; 410 IAC 6-10.1-9.3)

SECTION 10. 410 IAC 6-10.1-9.4 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-8.3-9.4 “Construction, New” defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 9.4. “Construction, New” means either:

(1) construction of a new commercial facility where there previously was no commercial facility; or

(2) replacing, rebuilding, or remodeling an existing commercial facility when the design daily flow or the waste strength of the new structure or structures exceeds what was previously at the site.

Best judgment, as described in this rule for replacement of failed soil absorption systems, shall not be used for new construction.

(Indiana Department of Health; 410 IAC 6-10.1-9.4)

SECTION 11. 410 IAC 10.1-9.5 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-9.5 “Construction, Repair/Replacement” defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 9.5. “Construction, Repair/Replacement” means either:

(1) repair or replacement of a commercial on-site sewage system for a commercial facility; or

(2) rebuilding or remodeling of an existing commercial facility without an increase in the design daily flow **or waste strength of the project.**

~~**In accordance with this rule, the best judgment of the department may be used, when necessary and appropriate, for the repair or replacement of a soil absorption system in a failing commercial on-site sewage system.**~~

(Indiana Department of Health; 410 IAC 6-10.1-9.5)

SECTION 12. 410 IAC 6-10.1-13.1 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-8.3-13.1 “Designer” defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 13.1. “Designer” means an individual who designs and submits detailed on-site sewage system construction plans to the department or the local health department for review as part of a construction permit application.

(Indiana Department of Health; 410 IAC 6-10.1-13.1)

SECTION 13. 410 IAC 6-10.1-15 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-15 "Drainageway" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 15. "Drainageway" means the channel portion of the landscape, **or ephemeral stream, in which surface water or rainwater runoff ~~gathers intermittently to flow~~ **flows** to a lower elevation.**

(Indiana Department of Health; 410 IAC 6-10.1-15; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed

217 Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

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SECTION 14. 410 IAC 6-10.1-15.1 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-15.1 “Drywell” defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 15.1. “Drywell” means a subsurface excavation, typically reinforced along the outer walls with brick, blocks, metal, or precast concrete and may contain aggregate in the interior of the lining. A drywell is often bottomless. A drywell may or may not be preceded by a septic tank and is usually deeper than thirty-six (36) inches. Sewage seeps out of the sidewalls and bottom of the drywell.

(Indiana Department of Health; 410 IAC 6-10.1-15.1)

SECTION 15. 410 IAC 6-10.1-17.1 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-17.1 “Fixed reference point” defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 17.1. “Fixed reference point” means a location that is readily identifiable from which measurements can be taken in order to describe the location of soil borings, soil pits, and system components and must remain in place until the project is completed.

(Indiana Department of Health; 410 IAC 6-10.1-17.1)

SECTION 16. 410 IAC 6-10.1-17.2 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-17.2 “Fragic soil properties” defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 17.2. “Fragic properties” means a diagnostic soil characteristic associated with some soil aggregates in subsoil horizons of mineral soils. Aggregates with fragic properties are firm (or firmer) and brittle when the moisture content is at or near field capacity. Air-dry fragments slake when submerged in water, but are weakly cemented, or are not cemented. In addition, the aggregates show evidence of pedogenesis and are restrictive to roots. In effect, fragic soil properties are recognized in materials exhibiting all the characteristics of a fragipan except for continuity or thickness. Fragic soil properties are diagnostic for fragic subgroups (intergrades to other soil classes having a fragipan). Soil horizons that exhibit fragic properties (including those that qualify as fragipans) are designated by the suffix “x” (e.g., Bx or Btx).

(Indiana Department of Health; 410 IAC 6-10.1-17.2)

SECTION 17. 410 IAC 6-10.1-17.3 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-8.3-17.3 “Fragipan” defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 17.3. “Fragipan” means a natural, diagnostic subsurface horizon with very low organic matter, high bulk density, or high mechanical strength relative to overlying and underlying horizons; has a hard or very hard consistence (seemingly cemented) when dry but showing a moderate to weak brittleness when moist. The layer typically has redoximorphic features, is slowly or very slowly permeable to water, is considered to be root restricting, and usually has few to many bleached, roughly vertical planes that are faces of coarse or very coarse polyhedrons or prisms, as classified

271 **in the U.S. Department of Agriculture’s Soil Taxonomy.**

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273 **(Indiana Department of Health; 410 IAC 10.1-17.3)**

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275 SECTION 18. 410 IAC 6-10.1-18 IS AMENDED TO READ AS FOLLOWS:

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277 410 IAC 6-10.1-18 "Grease trap" or **“grease interceptor”** defined

278 Authority: IC 16-19-3-4

279 Affected: IC 16-19-3-4

280

281 Sec. 18. "Grease trap" or **“grease interceptor”** means a **plumbing device or** tank designed to intercept, congeal, and
282 retain or remove fats, oils, and grease (FOGs) from sewage.

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284 *(Indiana Department of Health; 410 IAC 6-10.1-18; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
285 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

286

287 SECTION 19. 410 IAC 6-10.1-19 IS AMENDED TO READ AS FOLLOWS:

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289 410 IAC 6-10.1-19 "Health officer" defined

290 Authority: IC 16-19-3-4

291 Affected: IC 16-19-3-4

292

293 Sec. 19. "Health officer" means the **health officer representative** of a local ~~board of~~ health **department**.

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295 *(Indiana Department of Health; 410 IAC 6-10.1-19; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
296 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

297

298 SECTION 20. 410 IAC 6-10.1-20 IS AMENDED TO READ AS FOLLOWS:

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300 410 IAC 6-10.1-20 "High strength waste" defined

301 Authority: IC 16-19-3-4

302 Affected: IC 16-19-3-4

303

304 Sec. 20. "High strength waste" means either of the following as defined by National Sanitation Foundation International
305 ~~(NSF) Standard 40 testing protocol:~~

306 (1) Influent to a septic tank or other pretreatment component having any ~~or all~~ of the following:

307 (A) A five (5) day biochemical demand (BOD₅) greater than three hundred (300) mg/L.

308 (B) Total suspended solids (TSS) greater than two hundred (200) mg/L.

309 (C) Fats, oils, and grease (FOGs) greater than fifty (50) mg/L.

310 (2) Effluent from a septic tank or other pretreatment component discharged to a soil absorption field having any ~~or all~~ of
311 the following:

312 (A) A BOD₅ greater than one hundred seventy (170) mg/L.

313 (B) TSS greater than sixty (60) mg/L.

314 (C) FOGs greater than twenty-five (25) mg/L.

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316 *(Indiana Department of Health; 410 IAC 6-10.1-20; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
317 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

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319 SECTION 21. 410 IAC 6-10.1-20.1 IS ADDED TO READ AS FOLLOWS:

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321 **410 IAC 6-10.1-20.1 “IAPMO” defined**

322 Authority: IC 16-19-3-4

323 Affected: IC 16-19-3-4

324

325 **Sec. 20.1. “IAPMO” means the International Association of Plumbing and Mechanical Officials.**

326
327 *(Indiana Department of Health; 410 IAC 6-10.1-20.1)*

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329 SECTION 22. 410 IAC 6-10.1-21.1 IS ADDED TO READ AS FOLLOWS:

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331 **410 IAC 6-10.1-21.1 “Inspector” defined**

332 **Authority: IC 16-19-3-4**

333 **Affected: IC 16-19-3-4**

334
335 **Sec. 21.1. “Inspector” means any individual who performs inspections of existing on-site sewage systems in**
336 **compliance with section 54.1 for determination of system compliance with this rule.**

337
338 *(Indiana Department of Health; 410 IAC 6-10.1-21.1)*

339
340 SECTION 23. 410 IAC 6-10.1-21.2 IS ADDED TO READ AS FOLLOWS:

341
342 **410 IAC 6-10.1-21.2 “Installer” defined**

343 **Authority: IC 16-19-3-4**

344 **Affected: IC 16-19-3-4**

345
346 **Sec. 21.2. “Installer” means any individual who performs any work in furtherance of the:**

347 **(1) construction;**

348 **(2) installation;**

349 **(3) replacement;**

350 **(4) alteration;**

351 **(5) repair;**

352 **(6) expansion; or**

353 **(7) abandonment**

354 **of a commercial on-site sewage system that is subject to the provisions of this rule.**

355
356 *(Department of Health; 410 IAC 6-10.1-21.2)*

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358 SECTION 24. 410 IAC 6-10.1-22 IS AMENDED TO READ AS FOLLOWS:

359
360 410 IAC 6-10.1-22 "Interceptor drain" defined

361 **Authority: IC 16-19-3-4**

362 **Affected: IC 16-19-3-4**

363
364 **Sec. 22. "Interceptor drain" means a subsurface drainage system constructed only on the upslope side or sides of a soil**
365 **absorption system for the purpose of lowering a seasonal high water table and diverting subsurface water around the soil**
366 **absorption system site.**

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368 *(Indiana Department of Health; [410 IAC 6-10.1-22](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
369 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

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371 SECTION 25. 410 IAC 6-10.1-22.1 IS ADDED TO READ AS FOLLOWS:

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373 **410 IAC 6-10.1-22.1 “Involuntary” defined**

374 **Authority: IC 16-19-3-4**

375 **Affected: IC 16-19-3-4**

376
377 **Sec. 22.1. “Involuntary” means a need to modify or improve commercial facility due to factors outside of the**
378 **owner’s control, such as destruction by wind, fire, flood, or other natural disaster, or ~~due to~~ condemnation of the structure.**

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(Indiana Department of Health; 410 IAC 6-10.1-22.1)

SECTION 26. 410 IAC 6-10.1-22.2 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-22.2 "Limiting layer" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 22.2. (a) "Limiting layer" means a soil horizon that restricts suitability of a site for a soil absorption system or restricts the depth of installation of a soil absorption system. A limiting layer can be a restrictive soil horizon or poor filter.

(b) A restrictive limiting layer is a soil horizon with:

(1) with a soil loading rate less than twenty-five hundredths (0.25) gpd/ft² as assigned in Table V in section 78(b)(7) of this rule or Table VI in section 80(b)(6) of this rule; or

(2) soil transitional to dense till, developed from Wisconsinan glacial till, that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:

(A) the on-site soils evaluation report shows that the presence of the soil horizon is not detrimental to the proper functioning of an on-site sewage system as determined by a registered professional soil scientist; and

(B) the determination in clause (A) of this subdivision is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines.

(c) A poor filter limiting layer is a soil horizon with:

(1) a soil loading rate greater than seventy-five hundredths (0.75) gpd/ft², as assigned in Table V in section 80(b)(7) of this rule or Table VI in section 80 (b)(6) of this rule, for a gravity fed or flood dosed subsurface trench on-site sewage systems;

(2) a soil loading rate greater than one and twenty-hundredths (1.20) gpd/ft², as assigned in Table V in section 80(b)(7) of this rule or Table VI in section 80 (b)(6) of this rule, for any type of on-site sewage system;

(3) less than twenty percent (20%) clay by volume and greater than thirty-five percent (35%) coarse fragments by volume; or

(4) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume.

(Indiana Department of Health; 410 IAC 6-10.1-22.2)

SECTION 27. 410 IAC 6-10.1-27 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-27 "Operating permit" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 27. "Operating permit" means written approval by the department or local health department for the continued use and maintenance of a commercial on-site sewage system.

(Indiana Department of Health; 410 IAC 6-10.1-27; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 28. 410 IAC 6-10.1-29 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-29 "Perimeter drain" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 29. "Perimeter drain" means a subsurface drainage system that completely surrounds a soil absorption system for

433 the purpose of lowering a seasonal high water table ~~or~~ and preventing movement of subsurface water into a soil absorption system
434 site.

435
436 *(Indiana Department of Health; 410 IAC 6-10.1-29; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
437 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
438

439 SECTION 29. 410 IAC 6-10.1-30.1 IS ADDED TO READ AS FOLLOWS:

440 **410 IAC 6-10.1-30.1 “Project narrative”**

441 **Authority: IC 16-19-3-4**

442 **Affected: IC 16-19-3-4**

443
444
445 **Sec. 30.1. “Project narrative” means a description, including but not limited to, the type of project, operational**
446 **details, and purpose of the project (new, expansion, remodel, replacement) for use in determination of estimated sewage**
447 **flows on peak days and anticipated wastewater characteristics.**

448
449 *(Indiana Department of Health; 410 IAC 6-10.1-30.1)*

450 SECTION 30. 410 IAC 6-10.1-32 IS REPEALED:

451 410 IAC 6-10.1-32 "Regulatory flood elevation" or "RFE" defined

452 **Authority: IC 16-19-3-4**

453 **Affected: IC 16-19-3-4**

454
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456
457 ~~Sec. 32. "Regulatory flood elevation" or "RFE" means the elevation of surface water resulting from a flood for which~~
458 ~~there is a one percent (1%) probability of equaling or exceeding that level in any given year as calculated by a method and~~
459 ~~procedure that is approved by the Indiana natural resources commission. The regulatory flood elevation is also referred to as the~~
460 ~~base flood elevation. *(Indiana Department of Health; 410 IAC 6-10.1-32; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-*~~
461 ~~*410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA)*~~

462
463 SECTION 31. 410 IAC 6-10.1-32.1 IS ADDED TO READ AS FOLLOWS:

464
465 **410 IAC 6-8.3-32.1 “Recreational vehicle”**

466 **Authority: IC 16-19-3-4**

467 **Affected: IC 16-19-3-4**

468
469 **Sec. 32.1. “Recreational vehicle” means a travel trailer, park model, collapsible trailer, truck-mounted camper,**
470 **or motor home.**

471
472 *(Indiana Department of Health; 410 IAC 6-10.1-32.1)*

473 SECTION 32. 410 IAC 6-10.1-32.2 IS ADDED TO READ AS FOLLOWS:

474
475
476 **410 IAC 6-10.1-32.2 "Responsible charge of installers" defined**

477 **Authority: IC 16-19-3-4**

478 **Affected: IC 16-19-3-4**

479
480 **Sec. 32.2. “Responsible charge of installers” means the direct control and personal supervision by a registered**
481 **installer of the work being performed at a job site for the installation of an on-site sewage system including, but not limited**
482 **to site preparation work, tilling, construction, finish grading, and soil stabilization for all components of the on-site sewage**
483 **system being installed.**

484
485 *(Indiana Department of Health; 410 IAC 6-10.1-32.2)*

486

487 SECTION 33. 410 IAC 6-10.1-32.3 IS ADDED TO READ AS FOLLOWS:

488
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492

410 IAC 6-10.1-32.3 "Secondary safety device" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

493 **Sec. 32.3. "Secondary safety device" means a device installed below a riser cover of a tank that is commercially**
494 **manufactured for the purpose of preventing accidental entry into the tank.**

495
496 *(Indiana Department of Health; 410 IAC 6-10.1-32.3)*

497
498 SECTION 34. 410 IAC 6-10.1-36 IS AMENDED TO READ AS FOLLOWS:

499
500 410 IAC 6-10.1-36 "Segment drain" defined
501 Authority: IC 16-19-3-4
502 Affected: IC 16-19-3-4
503

504 Sec. 36. "Segment drain" means a subsurface drainage system constructed between two (2) soil absorption fields in the
505 same on-site sewage system for the purpose of **lowering a seasonal high water table and** intercepting and diverting subsurface
506 water away from the downslope soil absorption field.

507
508 *(Indiana Department of Health; 410 IAC 6-10.1-36; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
509 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

510
511 SECTION 35. 410 IAC 6-10.1-38.1 IS ADDED TO READ AS FOLLOWS:

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516

410 IAC 6-10.1-38.1 "Sewage Holding tank" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

517 **Sec. 38.1 "Sewage Holding tank" means a tank or series of tanks designed to hold sewage until it is pumped by a**
518 **licensed septage** management vehicle, and the outlet of the tank or the last tank **in** series is sealed to prevent sewage from
519 **discharging.**

520
521 *(Indiana Department of Health; 410 IAC 6-10.1-38.1)*

522
523 SECTION 36. 410 IAC 6-10.1-38.2 IS ADDED TO READ AS FOLLOWS:

524
525 **410 IAC 6-10.1-38.2 "Soil" defined**
526 Authority: IC 16-19-3-4
527 Affected: IC 16-19-3-4
528

529 **Sec. 38.2. "Soil" has the meaning set forth in IC 25-31.5-1-9.**

530
531 *(Indiana Department of Health; 410 IAC 6-10.1-38.2)*

532
533 SECTION 37. 410 IAC 6-10.1-40 IS AMENDED TO READ AS FOLLOWS:

534
535 410 IAC 6-10.1-40 "Soil absorption system" or "soil absorption field" defined
536 Authority: IC 16-19-3-4
537 Affected: IC 16-19-3-4
538

539 Sec. 40. "Soil absorption system" or "soil absorption field" means pipes or chambers laid in a system of subsurface
540 trenches or pipes laid in elevated beds into which the effluent from the septic tank is discharged into the soil for treatment and

541 dispersal. **The soil absorption system also includes the distribution box and the effluent sewers after the distribution box,**
542 **or the pressure manifold.**

543
544 *(Indiana Department of Health; 410 IAC 6-10.1-40; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
545 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
546

547 SECTION 38. 410 IAC 6-10.1-40.1 IS ADDED TO READ AS FOLLOWS:

548 **410 IAC 6-10.1-40.1 “Soil boring”**

549 **Authority: IC 16-19-3-4**

550 **Affected: IC 16-19-3-4**

551

552 **Sec. 40.1. “Soil boring” means an excavation made by a soil auger, probe, or similar small diameter soil sampling**
553 **equipment used to pull soil samples out of the ground that are used to provide a description and characterization of the**
554 **soil.**

555

556 *(Indiana Department of Health; 410 IAC 6-10.1-40.1)*

557

558 SECTION 39. 410 IAC 6-10.1-41 IS AMENDED TO READ AS FOLLOWS:

559

560 410 IAC 6-10.1-41 "Soil horizon" defined

561 Authority: IC 16-19-3-4

562 Affected: IC 16-19-3-4

563

564 Sec. 41. "Soil horizon" means a layer of soil or soil material approximately parallel to the land surface and differing from
565 adjacent genetically related layers in physical, chemical, and biological properties or characteristics such as:

566 (1) color;

567 (2) structure, **including grade, shape, and size;**

568 (3) texture;

569 (4) consistence;

570 **(5) percent coarse fragments;**

571 ~~(5)(6)~~ kinds and numbers of organisms present; and

572 ~~(6)(7)~~ degree of acidity or alkalinity.

573

574 *(Indiana Department of Health; 410 IAC 6-10.1-41; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
575 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
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577

578 SECTION 40. 410 IAC 6-10.1-42 IS AMENDED TO READ AS FOLLOWS:

579

580 410 IAC 6-10.1-42 "Soil loading rate" defined

581 Authority: IC 16-19-3-4

582 Affected: IC 16-19-3-4

583

584 Sec. 42. "Soil loading rate" means the allowable rate of application of septic tank effluent, **expressed in U.S. gallons,**
585 **that may be applied daily per square foot** of to the soil. ~~It is expressed in gallons per day per square foot.~~

586

587 *(Indiana Department of Health; 410 IAC 6-10.1-42; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
588 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
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591 SECTION 41. 410 IAC 6-10.1-42.1 IS ADDED TO READ AS FOLLOWS:

592

593 **410 IAC 6-10.1-42.1 “Soil pit” defined**

594 **Authority: IC 16-19-3-4**

Affected: IC 16-19-3-4

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Sec. 42.1. "Soil pit" means an excavation that is sufficiently wide, deep, and long enough for the soil scientist to enter the soil pit safely, according to the federal Occupational Safety and Health Administration (OSHA) and any other federal, state, or local requirements, to directly observe, characterize, and describe the soil profile.

(Indiana Department of Health; 410 IAC 6-10.1-42.1)

SECTION 42. 410 IAC 6-10.1-43 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-43 "Soil profile analysis" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 43. "Soil profile analysis" means the observation and evaluation of the physical, **chemical, and biological** characteristics of the soil horizons or layers to:
(1) a depth of at least five (5) feet; or
(2) if shallower, ~~a layer that cannot be readily penetrated~~ **to the depth of the limiting layer.**

(Indiana Department of Health; 410 IAC 6-10.1-43; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 43. 410 IAC 6-10.1-46 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-46 "Subsurface drainage system" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 46. "Subsurface drainage system" means any pipe with or without a layer of gravel, stone, or coarse sand, placed below the surface of the ground and designed or constructed in ~~such a manner as to~~ **way that:**
(1) effectively ~~lower~~ **lowers** a seasonal high water table; ~~and or~~
(2) ~~prevent~~ **prevents** movement of subsurface water into a soil absorption system site.
Interceptor, ~~drains~~, perimeter, ~~drains~~, and segment drains are types of subsurface drainage systems.

(Indiana Department of Health; 410 IAC 6-10.1-46; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 44. 410 IAC 6-10.1-47 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-47 "Technology new to Indiana" or "TNI" defined
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 47. "Technology new to Indiana" or "TNI" means on-site sewage treatment or disposal methods, processes, or equipment not described in this rule that have been approved by the: ~~department~~
(1) **Technical Review Panel for TNI components that meet the requirements of NSF/ANSI 40, NSF/ANSI 245, or NSF/ANSI 350** in accordance with ~~section 49(h) of this rule~~ **IC 16-19-3-27.5 and section 49(i) of this rule; or**
(2) **Department for TNI which does not meet the requirements of NSF/ANSI 40, NSF/ANSI 245, or NSF/ANSI 350** in accordance with section 49(i) of this rule.

(Indiana Department of Health; 410 IAC 6-10.1-47; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 45. 410 IAC 6-10.1-47.1 IS ADDED TO READ AS FOLLOWS:

649 **410 IAC 6-10.1-47.1 “Temporary Benchmark” defined**
650 **Authority: IC 16-19-3-4**
651 **Affected: IC 16-19-3-4**
652

653 **Sec. 47.1. “Temporary Benchmark” means any object whose actual elevation, or an arbitrarily assumed elevation**
654 **of said that object, is used as a point of reference until completion of the project.**

655 *(Indiana Department of Health; 410 IAC 6-10.1-47.1)*

656
657 SECTION 46. 410 IAC 6-10.1-47.2 IS ADDED TO READ AS FOLLOWS:

658
659 **410 IAC 6-10.1-47.2- “Upgraded Piping” defined**
660 **Authority: IC 16-19-3-4**
661 **Affected: IC 16-19-3-4**
662

663 **Sec. 47.2. “Upgraded Piping” means:**
664 **(1) Waterworks grade ductile iron pipe with tyton or mechanical joints; or**
665 **(2) PVC pressure sewer pipe with an SDR rating of twenty-six (26) or less with compression gasket joints; or**
666 **(3) Plastic pipe in compliance with Rule 327 IAC 8-3.2-8(a)(5).**
667

668 *(Indiana Department of Health; 410 IAC 6-10.1-47.2)*

669
670 SECTION 47. 410 IAC 6-10.1-47.3 IS ADDED TO READ AS FOLLOWS:

671
672 **410 IAC 6-10.1-47.3 “Voluntary” defined**
673 **Authority: IC 16-19-3-4**
674 **Affected: IC 16-19-3-4**
675

676 **Sec. 47.3. “Voluntary” means an owner’s intentional or deliberate action to modify or improve a commercial**
677 **facility.**

678 *(Indiana Department of Health; 410 IAC 6-10.1-47.3)*

679
680 SECTION 48. 410 IAC 6-10.1-47.4 IS ADDED TO READ AS FOLLOWS:

681
682 **410 IAC 6-10.1-47.4 “Watertight” defined**
683 **Authority: IC 16-19-3-4**
684 **Affected: IC 16-19-3-4**
685

686 **Sec. 47.4. “Watertight” means that water or effluent cannot leak into or out of the structure except through piping**
687 **in the designated pipe penetration ports or connectors. Pipe penetrations or connections shall result in a connection which**
688 **does not allow liquid to flow around the pipe penetration into the structure. Results of watertightness testing, as specified**
689 **in IAPMO/ANSI Z1000-2019 9.1 may be provided to confirm watertightness of new tanks. For existing tanks, the water**
690 **test procedure as outlined in IAPMO/ANSI Z1000-2019 9.1.3 may be used for watertightness testing. For new or existing**
691 **distribution boxes, a visual examination should be completed.**
692
693

694 *(Indiana Department of Health; 410 IAC 6-10.1-47.4)*

695
696 SECTION 49. 410 IAC 6-10.1-48 IS AMENDED TO READ AS FOLLOWS:

697
698 **410 IAC 6-10.1-48 Administrative authority**
699 **Authority: IC 16-19-3-4**
700 **Affected: IC 16-19-3-4**
701

702

703 Sec. 48. (a) The department, its agent, or the health officer or ~~his or her~~ **the health officer's** agent shall be permitted to
704 enter upon all properties at the proper time for the following purposes necessary to achieve compliance with this rule:

- 705 (1) Inspection.
- 706 (2) Observation.
- 707 (3) Measurement.
- 708 (4) Sampling.
- 709 (5) Testing.

710 (b) The department may delegate, in writing, to local health departments the plan review, approval, permit issuance, and
711 inspection for individual commercial facilities with on-site sewage systems with a design daily flow of less than or equal to seven
712 hundred fifty (750) gallons when the local health department complies with the requirements of the department for plan review,
713 approval, and permit issuance. The department may revoke, in writing, such delegation when a local health department fails to
714 comply with the requirements of the department for plan review, approval, and permit issuance. Local health departments may
715 review plans and issue permits based on delegation when the department:

- 716 (1) has designated which on-site sewage system technologies are delegated to the local health department for plan review,
717 approval, and permit issuance; and
- 718 (2) has provided design criteria to the local health department for each individual commercial on-site sewage system
719 project.

720
721 *(Indiana Department of Health; 410 IAC 6-10.1-48; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
722 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
723

724 SECTION 50. 410 IAC 6-10.1-49 IS AMENDED TO READ AS FOLLOWS:

725
726 410 IAC 6-10.1-49 General sewage disposal requirements

727 Authority: IC 16-19-3-4
728 Affected: IC 16-19-3-4
729

730 Sec. 49. (a) No person shall throw, run, drain, seep, or otherwise dispose into any of the surface waters or ground waters
731 of this state, or cause, ~~or permit, or suffer~~ to be thrown, run, drained, allowed to seep, or otherwise disposed into ~~such those~~
732 waters, ~~any~~ organic or inorganic matter from a commercial facility or commercial on-site sewage system that would cause or
733 contribute to a health hazard or water pollution.

734 ~~(b) In the event of~~ **If a commercial on-site sewage system failure the department or the local health officer may**
735 **require the commercial facility, if applicable, to make a direct connection to a sanitary sewer, if the sanitary sewer is**
736 **available within three hundred (300) feet of the affected property line and is available for connection at a construction cost**
737 **and connection fee estimated not to exceed one hundred fifty percent (150%) of the cost estimated for installing an on-site**
738 **sewage system to serve the commercial facility.**

- 739
740 ~~(b)~~ **(c) The:**
- 741 (1) design;
 - 742 (2) construction;
 - 743 (3) installation;
 - 744 (4) location;
 - 745 (5) maintenance; and
 - 746 (6) operation;

747 of commercial on-site sewage systems ~~shall~~ **must** comply with the provisions of this rule.

748 ~~(e)~~ **(d) All commercial on-site sewage systems utilizing using** sanitary privies shall conform to department bulletin SE
749 11, "The Sanitary Vault Privy", ~~1986~~ **2021** Edition.

750 ~~(e)~~ **(e) Any A commercial facility that is not connected, or cannot be connected, to a sanitary sewerage system shall must**
751 **be provided with a commercial on-site sewage system in compliance with this rule that includes:**

- 752 **(1) a septic tank and a soil absorption system that has not failed is not in failure; or**
- 753 **(2) A sewage holding tank in compliance with IC 16-41-25-9 and this rule; or**
- 754 **(3) A sanitary vault privy installed in compliance with Bulletin S.E. 11, 2021. A sanitary vault privy may be used**
755 **as the sole method of sewage disposal only if the commercial facility does not have interior plumbing, including**
756 **fixtures, water lines, waste collection piping, or drains. A sanitary vault privy may also be used in conjunction**

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with another type of on-site sewage system;

(4) An NPDES permit issued in accordance with 327 IAC 2; or

(5) A land application permit in accordance with 327 IAC 6.1.

~~(e)~~ **(f) A cesspool or a drywell, with or without a septic tank, is not a suitable means of commercial sewage disposal.**

A temporary sewage holding tank is an alternative method of sewage disposal subject to the written approval of the department. A temporary sewage holding tank shall not be used as a primary means of commercial sewage disposal except:

(1) where necessary to prevent continued discharge of sewage from a failed existing commercial on-site sewage system;

(2) when soil conditions exist that preclude the prompt construction of a soil absorption system on a site that has already received a construction permit; or

(3) where the holding tank is operated by a conservancy district, sewer district, private utility, or municipality as a part of its sewage disposal plan or for not more than two (2) years while connection to sanitary sewer is being secured. This two (2) year time frame may be extended upon documentation of satisfactory operation of the holding tank.

~~(f)~~ **(g) No portion of the a commercial on-site sewage system or its associated drainage system, a sewage holding tank, or a sanitary vault privy shall be constructed upon property other than that from which the sewage originates unless easements, an easement or a declaration of an on-site sewage system easement, if both properties are owned by the same person, which grant grants permission for such the construction and access for system maintenance, have has been obtained for that property and have has been legally approved and recorded by the proper authority or commission.**

~~(g)~~ **(h) Commercial on-site sewage systems shall not be used for the disposal of water from:**

(1) roof drains;

(2) foundation drains;

(3) swimming pool main drains;

(4) hot tub drains; or

(5) area drains.

~~Neither~~ **These sewage systems shall also not they** be used for the disposal of chemical wastes in quantities that would pollute ground water or inhibit solids settling or digestion in the septic tank.

~~(h)~~ **(i) In order to encourage permit development of new or more efficient treatment or disposal processes, the department TNI may be approved as follows:**

(1) The Technical Review Panel may approve TNI that meets the requirements of NSF/ANSI 40, NSF/ANSI 245, or NSF/ANSI 350 in accordance with IC 16-19-3-27.5; or

(2) The department may issue construction permits for experimental and TNI commercial on-site sewage systems using a TNI component or components that do not meet the requirements of NSF/ANSI 40, NSF/ANSI 245, or NSF/ANSI 350. Construction permits may be issued for installations, treatment, or disposal equipment, processes, or techniques if: for which

(A) extensive experience or records of use have not been developed in Indiana;

(B) However, the applicant must submit evidence of sufficient clarity and conclusiveness to convince the department verify that the proposal has a reasonable and substantial probability of satisfactory operation without causing a health hazard, nuisance, surface water pollution, or ground water pollution; and

(C) The department may also require the applicant to satisfactorily document how and by whom the TNI experimental facilities and any other portions of the commercial on-site sewage system are to be replaced if they are, which could be damaged due to a failure of the experimental TNI component or components installed. installation, are to be replaced if it becomes necessary.

(j) An existing commercial on-site sewage system may be considered for connection or reconnection to a new or replacement commercial facility if the following apply:

(1) The system is inspected as described in section 54.1 and found to consist minimally of an on-site sewage system as described in this rule that is not neither in failure and is not nor malfunctioning;

(2) Either:

(A) the original system installation was permitted through the department and/or the local health department, and the permit file contains sufficient information to verify system location, system design, and system sizing are compliant with the rule in place at the time of the system installation; or

(B) an installer or inspector develops a plan of the site and system, a soil scientist completes an on-site soil evaluation, and the system is shown to be compliant with the rule in place at the time of the system installation; and

(3) The existing system is appropriately sized for the structure to be served as follows:

(A) If the connection or reconnection is due to involuntary events, the department may utilize their best

811 judgment for the soil absorption field when approving a connection or reconnection to an existing system;
812 or

813 (B) If the connection or reconnection is due to voluntary events, the system being connected to shall must
814 meet the requirements of this rule.; and-

815 (4) A construction permit for connection or reconnection to an existing on-site sewage system shall must be
816 obtained from the department prior to the start of construction of the commercial facility.

817
818 *(Indiana Department of Health; 410 IAC 6-10.1-49; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*
819 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*
820 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

821 SECTION 51. 410 IAC 6-10.1-49.1 IS ADDED TO READ AS FOLLOWS:

822
823 **410 IAC 6-10.1-49.1 Professional standards for on-site sewage system installers**

824 Authority: IC 16-19-3-4

825 Affected: IC 16-19-3-4

826 Sec. 49.1 (a) ~~All~~ On-site sewage system installers shall abide by all associated requirements in state statutes, rules,
827 and local ordinances regarding on-site sewage systems.

828 (b) An installer shall register with the local health department if they wish to install, expand, replace, alter, repair,
829 or abandon ~~any~~ commercial on-site sewage system. Registration requires:

830 (1) Applying for installer registration on a form provided by the local health department; and

831 (2) **completing one of the following, if** the local health department requires competency testing:

832 (A) ~~P~~assing an examination offered by the department or the local health department; or

833 (B) ~~P~~assing an examination offered by another entity approved by the department or the local health
834 department; or

835 (C) ~~P~~roviding proof of registration in another Indiana county and a certificate issued by the Indiana
836 Onsite Wastewater Professional Association (IOWPA) in accordance with IC 16-41-25-12(b).

837 (c) A registered installer has responsible charge for the work being performed on the on-site sewage system.

838 (d) An installer who only abandons on-site sewage systems is exempt from ~~all~~ competency testing.

839 (e) A lapse of certification or registration, or repeated violation of any state statute, rules, or an ordinance
840 pertaining to on-site sewage systems, may result in revocation of ~~registration~~ or denial of registration renewal by the local
841 health officer.

842
843 **(Indiana Department of Health; 410 IAC 6-10.1-49.1)**

844 SECTION 52. 410 IAC 6-10.1-50 IS AMENDED TO READ AS FOLLOWS:

845
846 **410 IAC 6-10.1-50 Construction permit requirements**

847 Authority: IC 16-19-3-4

848 Affected: IC 13-26; IC 14-33; IC 16-19-3-4

849 Sec. 50. (a) Except as allowed by subsection (c), or section 48(b) of this rule, for ~~any~~ a commercial facility that will not
850 be connected to a sanitary sewerage system, the owner or agent of the owner shall must obtain a written construction permit,
851 signed by the commissioner or his or her duly authorized representative, for construction of a commercial on-site sewage system
852 ~~prior to before~~ the:

853 (1) start of construction of a commercial facility;

854 (2) start of construction of a regulated facility;

855 (3) reconstruction of ~~any~~ a commercial or regulated facility;

856 (4) **installation of any component of an on-site sewage system or the** addition to, alteration of, **expansion of,**
857 replacement of, or repair of an existing commercial on-site sewage system;

858 (5) installation of an on-site sewage system for an existing commercial facility that did not previously have an on-site
859 sewage system as defined in section 8 of this rule;

860 (6) expansion of a commercial or regulated facility that may increase the design daily flow;

861 (7) change of use of a commercial or regulated facility;

- 865 (8) change in operations that would increase the design daily flow; or
 866 (9) change of operations that would result in the increase of the BOD5, TSS, or FOGs of the sewage.
 867 (b) Nothing in this rule shall be construed as preventing requirements in a local ordinance for the issuance of a commercial
 868 on-site sewage system **construction permit**, provided that the permit required by local ordinance is:
 869 (1) issued only after permit issuance by the department (except as permitted in section 48(b) of this rule or subsection
 870 (c) of this rule); and
 871 (2) is not in conflict with the permit issued by the department.
 872 (c) Construction permits shall not be required for the following:
 873 (1) Repair or replacement of commercial on-site sewage system equipment with new units of similar design and capacity,
 874 none of which will cause a health hazard or adversely affect ground water, facility operation, hydraulics, physiochemical
 875 treatment, biological treatment, solids removal, or the ultimate means of liquid disposal. This section shall not be
 876 construed as allowing the construction of replacement soil absorption fields or portions thereof without a valid
 877 construction permit issued in accordance with this rule.
 878 (2) Commercial on-site sewage systems for which a construction permit has been issued under 327 IAC 3, and which
 879 serve two (2) or more premises, and which are owned, operated, or maintained by an incorporated city or town, a
 880 conservancy district established under IC 14-33, or a regional sewer district established under IC 13-26. This section
 881 shall not be construed as an exemption from the requirement of subsection (a) for commercial on-site sewage systems
 882 located on the premises of and serving only schools or municipal facilities.

883
 884 *(Indiana Department of Health; 410 IAC 6-10.1-50; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
 885 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
 886

887 SECTION 53. 410 IAC 6-10.1-51 IS AMENDED TO READ AS FOLLOWS:

888
 889 410 IAC 6-10.1-51 Application for construction permit

890 Authority: IC 16-19-3-4

891 Affected: IC 13-18-12; IC 16-19-3-4; IC 25-21.5-1-7; IC 25-31-1-2

892
 893 Sec. 51. (a) ~~Prior to Before the issuance of a construction permit, an~~ Application for a permit to construction permit
 894 ~~a commercial on-site sewage system shall must~~ be made to the department on forms provided by the department. Application for
 895 ~~a construction permit shall be made at least ninety (90) days prior to the date construction of the commercial on-site sewage system~~
 896 ~~is to commence. An A complete~~ application shall **contain, or include as attachments,** be considered complete only when the
 897 form is completed in its entirety, including all supplemental information required or requested by the department. Unless waived
 898 by the department an application for permit shall include the following:

899 (1) **A completed form provided by the department containing the following:**

900 (A) The signature of the applicant or his or her designated agent.

901 ~~(2)~~ (B) The name, business address, and business telephone number of the owner. For corporate owners, the name of
 902 the corporation, the name of its designated agent, and that agent's business address and business telephone number
 903 shall suffice.

904 (C) **The name, business address, and business telephone number of the registered engineer or architect who**
 905 **certified and sealed the construction plans and specifications required by subdivision (2), in writing.**

906 (D) **The inclusion of grinder and sewage ejector pumps, garbage grinders, water softeners, self-cleaning**
 907 **toilets, or other water using appliances that affect the waste strength characteristics or volume from the**
 908 **commercial facility in the commercial plumbing.**

909 ~~(2)~~ (2) One (1) set of detailed construction plans and specifications certified and sealed by a professional engineer or
 910 architect currently registered in Indiana, **or as provided in IC 25-21.5-5-1-7(b), registered land surveyors may only**
 911 **certify and seal plans for gravity sewers, storm sewers, and tile drains.** ~~said~~ Written plans of the site and
 912 **commercial on-site sewage system must be** drawn to scale and ~~having~~ have sufficient clarity to **verify that the design**
 913 **of the commercial on-site sewage system shall comply with the provisions of this rule, including, but not**
 914 **limited to:** be reproduced to create legible microfilm. ~~As provided in IC 25-21.5-1-7(b), registered land surveyors may~~
 915 ~~only certify and seal plans for gravity sanitary sewers, storm sewers, and tile drains.~~

916 (A) **The location and type of water supply source to serve the commercial facility.**

917 (B) **A detailed list of components and materials to be included in the on-site sewage system.**

918 (C) **The location and elevation assigned to the temporary benchmark or the NAVD88 elevation of the site.**

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(D) The location of all soil borings and pits and the location of the minimum two (2) fixed reference points, if available. At least one fixed reference point is required

(E) Sufficient elevations to determine and confirm:

- (i) the slope of all sewers;
- (ii) the total dynamic head for pump sizing;
- (iii) that the soil absorption field is placed along the contour of the site;
- (iv) the maximum installation depth of the soil absorption field;
- (v) the depth of subsurface drainage from grade and from the invert of the adjacent trench bottom elevation; and
- (vi) the slope of the subsurface drainage tile throughout the subsurface drain and the outlet.

(F) All applicable separation distances to items listed in Table II of section 61 from any on-site sewage system component, including any drinking water supply facilities within three hundred (300) feet of the commercial on-site sewage system.

(G) Site topography, with contours established at intervals of two (2) feet or less.

(H) Landscape features in the general vicinity of the proposed on-site sewage system that would impact the system layout, installation, or function.

~~(4)~~ **(3) A plot or legal description of the property map or other documentation showing the location of the property involved.**

~~(5)~~ **A plot plan, drawn to scale, showing the location of the proposed commercial on-site sewage system with respect to property lines, existing and proposed structures, roads, and parking lots, and any drinking water supply facilities within three hundred (300) feet of the commercial on-site sewage system. The plot plans shall also show site topography, with contours established at intervals of two (2) feet or less.**

~~(6)~~ **The name, business address, and business telephone number of the registered engineer or architect who certified and sealed the construction plans and specifications required by subdivision (3), in writing.**

~~(7)~~ **(4) For those commercial on-site sewage systems that will include an soil absorption field, an on-site soils evaluation report prepared by a soil scientist, detailing his or her evaluation of soils observed in the area of the proposed absorption field. The on-site soils evaluation report shall include all information required in section 64 of this rule.**

~~(8)~~ **(5) For those commercial on-site sewage systems that will include a temporary sewage holding tank, documentation of sufficient clarity and conclusiveness to convince the department that the:**

- (A) sewage will be collected from the holding tank and disposed of, in compliance with IC 13-18-12; and**
- (B) temporary sewage holding tank will be abandoned and a sewer connection will be made to another type of commercial on-site sewage system, or to a municipal or private utility sewer, or to a regional sewer district or conservancy district sewer, within two (2) years from the date of permit issuance; and**
- (C) the holding tank has at least a three (3) day holding capacity, and will be equipped with an audio-visual alarm set to activate at two-thirds (2/3) capacity in compliance with IC 16-41-25-9 the ninety-five percent (95%) level.**

~~(9)~~ **(6) Sewage characteristics and calculations used to estimate sewage flow on the peak day, in gallons, to be disposed of through each proposed commercial on-site sewage system. If more than one (1) type of facility is to be connected to a proposed commercial on-site sewage system, sewage characteristics and calculations used to estimate sewage flow, in gallons, from each facility on its peak day must be submitted. Information needed includes, but is not limited to:**

- (A) A project narrative for the facility;**
- (B) A floor plan, if necessary;**
- (C) Number of employees, hours of operation, days of operation, and number of shifts per day;**
- (D) An estimated peak number of customers per day and an estimated length of stay at the facility;**
- (E) Shower and laundry amenities at the facility;**
- (F) A full menu, if applicable; and**
- (G) Water using kitchen or breakroom appliances.**

~~(10)~~ **(7) A summary delineating, for each diameter of pipe utilized, the estimated total length of sanitary sewer and sewage force main to be installed.**

~~(11)~~ **(8) For commercial facilities generating high strength waste as defined in section 20 of this rule, the plan submittal must include a process to accommodate the additional organic loading.**

~~(12)~~ **(9) All additional information requested by the department to substantiate that the proposed commercial on-site sewage system can reasonably be expected to treat and dispose of all sewage received without causing a health hazard, nuisance, surface water pollution, or ground water pollution.**

973 (b) Requests for additional substantiating information made under subsection (a)(12)(9) shall be addressed to the
974 registered engineer or architect who certified and sealed the construction plans and specifications required by subsection
975 (a)(3)(1)(C).
976

977 *(Indiana Department of Health; 410 IAC 6-10.1-51; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
978 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
979

980 SECTION 54. 410 IAC 6-10.1-53 IS AMENDED TO READ AS FOLLOWS:

981
982 410 IAC 6-10.1-53 Construction permit conditions

983 Authority: IC 16-19-3-4

984 Affected: IC 16-19-3-4
985

986 Sec. 53. (a) The department may specify in its construction permits any limitations, terms, or conditions necessary to
987 provide a functional, easily operated, enduring commercial on-site sewage system in accordance with this rule, or to prevent a
988 health hazard, nuisance, surface water pollution or ground water pollution. In addition, all commercial on-site sewage system
989 construction permits shall contain the following requirements, not necessarily verbatim:

990 (1) That the original permit expiration date shall be one (1) year after permit issuance.

991 (2) That if the applicant has started installation of equipment, piping, or tankage that will comprise part of the commercial
992 on-site sewage system, on or before the original date of permit expiration, the permit shall expire two (2) years after
993 issuance.

994 (3) That all necessary local permits and approvals be obtained before construction is begun.

995 (4) That any proposed changes, alterations, or additions to the commercial on-site sewage system herein approved, be
996 submitted to the department for review and approval ~~prior to~~ before the start of construction to effect the proposed
997 changes, alterations, or additions.

998 (5) That no change in occupancy or use of the facility served be effected if it would result in sewage flow on the peak
999 day in excess of the capacity of the commercial on-site sewage system as stated in the construction permit, or if it would
1000 result in sewage being generated of a type incompatible with soil absorption field disposal ~~treatment and dispersal~~. Any
1001 ~~such~~ change in occupancy or use may be made only after the department has issued a construction permit for
1002 modifications to the subject commercial on-site sewage system that will allow it to accommodate increased sewage flows.

1003 (6) That if pollution, health hazards, or nuisance conditions occur that are attributable to the commercial on-site sewage
1004 system permitted herein, immediate corrective action be taken by the owner.

1005 (7) That the permittee notify the department and the local health department at least seven (7) days before construction
1006 of the approved commercial on-site sewage system is to ~~commence~~ begin.

1007 (b) No construction on the commercial on-site sewage system may take place if the commercial on-site sewage system
1008 site is disturbed or altered after the on-site evaluation by the addition of fill material (other than construction necessary for the
1009 commercial on-site sewage system) or by cutting, scraping, ~~compaction~~ compacting, or the ~~removal of~~ removing soil, until a new
1010 on-site evaluation has been conducted and a modified construction permit has been issued.

1011 (c) A soil absorption system replacement for a commercial on-site sewage system shall must meet or exceed the
1012 minimum provisions of this rule. When a replacement soil absorption field is necessary due to on-site sewage system failure,
1013 and if the replacement soil absorption system cannot meet all of the provisions of this rule, deviations to this rule for a soil
1014 absorption system replacement may be made in accordance with the best judgment of the department as follows:

1015 (1) Best judgment of the department shall must be based on the following:

1016 (A) Limitations of the site.

1017 (B) Written results of an inspection of the existing on-site sewage system as described in section 54.1 of
1018 this rule which identifies the probable reasons for system failure.

1019 (C) Written results of an on-site soils evaluation.

1020 (2) Soil absorption system replacements for a commercial on-site sewage system utilizing using best judgment may
1021 have trenches constructed to a maximum depth of forty-eight (48) inches below final grade, if necessary, and if
1022 the site and soil conditions allow.

1023 (3) Soil absorption system replacement shall not be contrary to sections 49(a) and 68(h) of this rule.

1024 (4) Deviations to this rule for soil absorption system replacement shall be identified and recorded on the
1025 construction permit issued for the replacement soil absorption system.

1026 (d) ~~In the case of~~ For a commercial on-site sewage system failure, the department may require an approved

1027 aeration unit, in compliance with section 68(h), for aerobic digestion after the septic tank and prior to the soil absorption
1028 field, if high strength waste is confirmed to be a contributing factor to the failure. The aeration unit manufacturer shall
1029 confirm that the specified unit will reduce the waste strength below that of high strength waste. No sizing reduction for the
1030 septic tank or soil absorption field shall be allowed for the use of an aeration unit in this manner. The aeration unit may
1031 not be required if the commercial facility owner agrees to an appropriate plan approved by the department to reduce the
1032 waste strength ~~below that of high strength waste~~ in another ~~mannerway~~.

1033 (e) The construction permit for a commercial on-site sewage system in violation of this ~~section~~ rule may be revoked
1034 by the department or **the health** officer in accordance with section 56 of this rule. Requirements of permits issued for the
1035 construction of commercial on-site sewage systems shall not be considered fulfilled until the installation is completed in
1036 compliance with this rule and with the approved construction plan and approved by the health officer or the health officer's
1037 duly authorized representative.

1038
1039 *(Indiana Department of Health; 410 IAC 6-10.1-53; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1040 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1041 SECTION 55. 410 IAC 6-10.1-54 IS AMENDED TO READ AS FOLLOWS:

1042
1043 410 IAC 6-10.1-54 Operating permits

1044 Authority: IC 16-19-3-4

1045 Affected: IC 16-19-3-4

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1048 Sec. 54. (a) The department or the local health department may require written operating permits as follows:

1049 (1) A written operating permit issued by the department ~~shall must~~ be signed by the commissioner or his or her duly
1050 authorized representative. **A written operating permit issued by the local health department must be signed by the**
1051 **health officer.**

1052 (2) An operating permit ~~shall must~~ be renewed as follows:

1053 (A) At least once every three (3) years for on-site sewage systems having **mechanical** components **in addition**
1054 **to a septic tank and a soil absorption field. Mechanical components include, but are not limited to, effluent**
1055 **pumps, floats, control panels, control sensors, blowers, and flush valves,** ~~other than a septic tank, requiring~~
1056 ~~scheduled inspection and maintenance.~~

1057 (B) At least once every five (5) years for all **gravity fed** ~~other~~ on-site sewage systems **that consist of only a**
1058 **septic tank and a soil absorption field with no mechanical components.**

1059 (C) **At least once every two (2) years for a sewage holding tank or sanitary vault privy.**

1060 (b) An operating permit ~~shall must~~ identify all components of an on-site sewage system requiring inspection and
1061 maintenance.

1062 (c) The records for an operating permit requiring scheduled inspection and maintenance ~~shall must~~ contain the following:

1063 (1) The name, address, and telephone number of the service company contracted to perform inspection and maintenance.

1064 (2) A description of the operation and maintenance document or documents used for scheduled inspection and
1065 maintenance.

1066 (d) ~~The An~~ owner shall provide the department **or the local health department** with the following:

1067 (1) Written documentation of all scheduled and unscheduled inspection and maintenance within one (1) month of the
1068 date performed.

1069 (2) A copy of the inspection and maintenance contract.

1070 (e) **Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an**
1071 **operating permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in**
1072 **conflict with an operating permit issued by the department.**

1073 (⇌) (f) The operating permit for a commercial on-site sewage system in violation of subsection (d) may be revoked by the
1074 department or the local health department, if the local health department issued the operating permit, in accordance with
1075 section 56 of this rule.

1076 (g) **The department or the local health department may require a system to be inspected, as described in section**
1077 **54.1 of this rule, detailing the functionality of the system components and maintenance concerns before operating permit**
1078 **renewal.**

1079 (f) ~~Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an operating~~
1080 ~~permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in conflict with an~~

operating permit issued by the department.

(g) If a service contract is discontinued for any reason, the owner or the service provider shall contact the department or local health department and a new service contract for operation and maintenance shall be provided to the department or local health department within one (1) month of lapse in contract.

(Indiana Department of Health; 410 IAC 6-10.1-54; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 56. 410 IAC 6-10.1-54.1 IS ADDED TO READ AS FOLLOWS:

401 IAC 6-10.1-54.1 Requirements for inspection of existing on-site sewage systems

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 54.1. (a) When an on-site sewage system is to be inspected for: determinations made in section 49(l) for

(1) connection or reconnection to an existing on-site sewage system described in section 49(j) of this rule;

(2) for use of best judgment as described in section 53(c) of this rule;

(3) operating permit renewal as described in section 54(e) of this rule

(4) application for change of use or change of operation applications as described in section 50(a); or

(5) for other inspections that will be submitted to the department or local health department;

the requirements of this section shall apply.

(b) Prior to Before inspection of an existing on-site sewage system is inspected, the inspector shall obtain a copy of the on-site sewage system construction permit and operating permit files, if available, including, but not limited to, the permit(s) or permits, construction plan, final inspection documentation, and any complaint information related to the on-site sewage system being inspected from the department and local health department.

(c) The system must minimally include a commercial on-site sewage system as defined in this rule as follows:

(1) If the system being inspected does not contain, at a minimum, a commercial on-site sewage system as specified in section 49(e) of this rule, the inspector shall document that the system does not meet the minimum requirements of this rule.

(2) The system being inspected shall must be evaluated with respect to the appropriate on-site sewage system rule or Sanitary Engineering Bulletin 13 that was in place at the time of the system permitting and installation.

(3) If the system was installed prior to 1964 there is no rule or bulletin with which to comply, but the system shall minimally consist of a system as described in section 49(e).

(d) Each component of the on-site sewage system shall be thoroughly inspected and documented, including but not limited to:

(1) The septic tank, grease trap or grease interceptor, holding tank, or privy vault shall be pumped by a licensed waste hauler septage management vehicle and inspected for:

(A) working capacity;

(B) watertightness and root intrusion;

(C) concrete corrosion or tank deformation;

(D) functional, intact inlet baffle;

(E) functional, intact outlet baffle or outlet filter assembly;

(F) functional and safe high water alarm and electrical box in a holding tank; and

(G) riser to grade, securely fastened lid, and secondary childproof plug safety device, if applicable.

(2) The secondary treatment unit, if applicable, shall be pumped, if necessary, and thoroughly inspected and documented, including, but not limited to:

(A) working capacity;

(B) watertightness and root intrusion;

(C) concrete corrosion or tank deformation;

(D) functionality and setting of all components, control panels, and alarms;

(E) riser to grade, securely fastened lid, and secondary childproof plug safety device, if applicable.

(3) The dosing tank, if present, should be pumped if needed, and shall be thoroughly inspected and documented, including but not limited to:

(A) working capacity;

- 1135 (B) watertightness and root intrusion;
 1136 (C) concrete corrosion or tank deformation;
 1137 (D) riser to grade, securely fastened lid, and secondary **childproof plug safety device**, if applicable; and
 1138 (E) functional and safe effluent pump, pump controls, high water alarm and electrical box. If the pump
 1139 is removed during the inspection, the manufacturer and model of the pump should be documented.
 1140 (4) If there is a distribution box, the box should be opened for inspection. The box should be visually inspected
 1141 and documented, including but not limited to:
 1142 (A) watertightness and root intrusion;
 1143 (B) concrete corrosion, box deformation or cracking;
 1144 (C) functional, intact inlet baffle, with vent hole, if needed;
 1145 (D) the number of outlets in use;
 1146 (E) invert of the outlets all at the same level **to ensure equal distribution**; and
 1147 (F) the presence of solids or soil in the distribution box.
 1148 (5) The soil absorption system shall be thoroughly observed and traversed. The following, at a minimum, shall be
 1149 documented:
 1150 (A) ~~s~~Soft or wet areas.
 1151 (B) ~~H~~lush vegetation or areas lacking vegetation.
 1152 (C) **Blockage or collapse of soil absorption field components.**
 1153 (D) ~~d~~Depth of soil cover over the soil absorption system, **as estimated by using a tile probe or similar tool,**
 1154 and final grading to promote surface water runoff.
 1155 (E) ~~a~~Approximate maximum depth of installation from grade.
 1156 (F) ~~s~~Signs of disturbance, construction, or compaction in the soil absorption system or dispersal area.
 1157 (G) ~~s~~Sources of water directed toward the soil absorption system area such as downspouts, sump pump
 1158 discharge, or hard surface runoff.
 1159 (6) Drainage, including surface diversion and subsurface drainage, ~~shall~~ **must** be inspected, including but not
 1160 limited to:
 1161 (A) ~~T~~he need for surface diversion and the presence or absence of sufficient diversion of surface water;
 1162 (B) ~~T~~he presence or absence of subsurface drainage; and
 1163 (C) Observation of the subsurface drainage outlet, if accessible.
 1164 (7) Areas of solid piping should be observed for any evidence of crushed piping and wet areas ~~which that~~ could
 1165 indicate a broken pipe.
 1166 (8) ~~All a~~Applicable separation distances shall be confirmed.
 1167 (9) Information obtained from the owner or owner's agent, or from interior inspection of the structure, of any
 1168 sump pump, condensate drain, or other non-~~wastewater~~ sewage source of water discharging to the on-site sewage
 1169 system.
 1170 (e) Within thirty (30) days of a completed inspection, a written report of the system evaluation shall be submitted
 1171 to the department **or local health department** including, but not limited to the following:
 1172 (1) A sketch of the site and system indicating any changes to the system design from the construction plan in the
 1173 permit file, areas of concern, inadequate separation distances, and other information as necessary to confirm
 1174 compliance with this rule. A copy of the original construction plan may be used if it is accurate.
 1175 (2) Indication of system failure, as defined in this rule, or malfunction of any component, if observed.

1176
 1177 *(Indiana Department of Health; 410 IAC 6-10.1-54.1)*
 1178

1179 SECTION 57. 410 IAC 6-10.1-56 IS AMENDED TO READ AS FOLLOWS:

1180 410 IAC 6-10.1-56 Revocation or modification of a construction or operating permit

1181 Authority: IC 16-19-3-4

1182 Affected: IC 16-19-3-4
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 1184

1185 Sec. 56. A commercial on-site sewage system construction or operating permit may be revoked or modified by the
 1186 department **or the health officer** for any of the following causes:

1187 (1) Violation of any of the provisions of this rule.

1188 (2) Violation of any limitation, term, or condition contained in the construction or operating permit.

- (3) Failure to disclose all facts relevant to construction, operation, and use of the commercial on-site sewage system in a manner that it can consistently treat and dispose of all sewage received for the life of the facilities it serves, without causing a health hazard, nuisance, surface water pollution or ground water pollution.
- (4) Any misrepresentation made to obtain the construction or operating permit.
- (5) Any change relating to the design, construction, or use of the on-site sewage system not approved, in writing, by the department.
- (6) Any other change, situation, or activity relating to use of the commercial on-site sewage system that, in the judgment of the department, is not consistent with the purposes of this rule.

(Indiana Department of Health; [410 IAC 6-10.1-56](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 58. 410 IAC 6-10.1-61 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-61 Minimum separation distances

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 61. (a) All ~~s~~Septic tanks, dosing tanks, lift stations, **holding tanks, treatment units**, and soil absorption systems **shall must** be located in accordance with Table II, as follows:

Table II – Minimum Separation Distances		
Minimum Distance in Feet from	Septic Tank and Other Treatment Units, Dosing Tank, Lift Station, Holding Tank	Soil Absorption System
Private water supply well ^{1,2} , subsurface cistern ¹	100	100
Private geothermal well ^{1,2}	100	100
Commercial water supply well ^{1,2}	100	100
Commercial geothermal well ^{1,2}	100	100
Public water supply system well ⁹ , lake, ^{1,3,4} or reservoir ^{1,3,4}	200	200
Other pond, retention pond, lake, or reservoir ³	50	50
Storm water detention area ^{3,5}	25	25
River, perennial or intermittent stream, ditch, or drainage tile ⁶	25	25
Buildings, foundations, slabs, garages, patios, barns, aboveground and belowground swimming pools, retaining walls, closed loop geothermal systems, roads, driveways, parking areas, or paved sidewalks	10 ⁷	10 ⁸
Front, side, or rear lot lines	5	5
Water lines continually under pressure	10	10
Suction water lines	50	50
Sinkhole	25	25
¹ The distances enumerated shall be doubled for soil absorption systems constructed where there exist horizons, layers, or strata within thirty-four (34) inches of the ground surface with a soil loading rate greater than seventy-five hundredths (0.75) gallons per day per square foot as determined from Table V of section 78(b)(8)(7) of this rule, unless that hazard can be overcome through on-site sewage system design.		
² The separation distance to a private water supply well abandoned in accordance with 312 IAC 13-10-2(e) may be reduced to ten (10) feet.		
³ Measured from the normal or ordinary high water mark.		
⁴ See subsections (b) and (c).		
⁵ Storm water detention area: area designated for the temporary detention of storm water, with the outlet located at the lowest elevation of the depression.		

⁶ See section 63(f) of this rule for subsurface drainage system separation.

⁷ Patios without footers, aboveground swimming pools, and sidewalks may be located within ten (10) feet of septic tank, as long as no required access points are obstructed.

⁸ A minimum separation of ten (10) feet is required on all sites.

⁹ **Required separation distance may be reduced to less than 200 feet for a public water system well if specified in writing by the Indiana Department of Environmental Management (IDEM).**

(b) A commercial on-site sewage system ~~shall~~**may** not be located within two hundred (200) feet of a public water supply lake or reservoir. However, ~~any~~**a** commercial on-site sewage system that includes secondary treatment ~~and meets the following requirements~~ may be less than two hundred (200) feet, but not less than fifty (50) feet, from the normal or ordinary high water mark of the lake or reservoir **if it:**

(1) Meets the minimum requirements of section 68(h)(1) through 68(h)(3) of this rule; or

(2) Is a system component independent of the soil absorption field that meets the effluent quality requirements of NSF/ANSI for certification under Standard 40 as a Class I plant, and that is approved by the department under the provisions of section 49~~(h)~~**(i)** of this rule.

(c) ~~Any~~**A** commercial on-site sewage system approved under the provisions of subsection (b) must be maintained for the life of the system through an operating permit issued under the provisions of section 54 of this rule.

(d) Sewers ~~shall~~**may** not be located within one hundred (100) feet of ~~any~~**a** water supply well or subsurface pump suction line, except as follows:

(1) Sewers constructed of ~~waterworks grade ductile iron pipe with tyton or mechanical joints, or PVC pressure sewer pipe with an SDR rating of twenty six (26) or less with compression gasket joints,~~ **upgraded piping** may be located within the one hundred (100) foot distance.

(2) In no case ~~shall~~**may** sewers be located closer than thirty (30) feet to any water source.

(e) If it is necessary to locate sewers or drains closer than two hundred (200) feet to a well or pump suction line in a mobile home park with twenty-five (25) or more lots, ~~waterworks grade ductile iron pipe with mechanical joints, or SDR 26 PVC pressure sewer pipe with compression fittings~~ **upgraded piping shall must** be used. ~~The piping shall not be constructed closer than seventy (70) feet to water sources.~~

(f) Water lines and sewers ~~shall~~**may** not be laid in the same trench and ~~shall~~**must** have the following requirements:

(1) A horizontal separation of ten (10) feet shall be maintained between water lines and sewers.

(2) Where crossings are necessary, ~~a minimum of at least~~ eighteen (18) inches vertical clearance must be maintained with the water line positioned above the sewer line when possible.

(3) When it is impossible to maintain proper horizontal and vertical separation, the sewer ~~shall~~**must** be constructed of **upgraded piping** ~~ductile iron pipe with mechanical joints or PVC pressure sewer pipe with an SDR rating of twenty six (26) or less, having mechanical or compression gasket joints~~ within ten (10) feet of the water line with the water line positioned above the sewer line when possible. The sewer shall be pressure tested to assure watertightness ~~prior to before~~ back filling.

(Indiana Department of Health; [410 IAC 6-10.1-61](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); filed Apr 17, 2014, 10:10 a.m.: [20140514-IR-410130351FRA](#); errata filed Oct 6, 2014, 3:08 p.m.: [20141029-IR-410140404ACA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 59. 410 IAC 6-10.1-62 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-62 Dispersal area

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 62. (a) A dispersal area is required for a soil absorption system when:

(1) the soil loading rate used to determine the size of the soil absorption system is five-tenths (0.5) gallons per day per square foot (gpd/ft²) or less; or

(2) there is a horizon in the upper sixty (60) inches of the profile description with: **a restrictive limiting layer.**

~~(A) bedrock;~~

(N) Other structures.

(3) A dispersal area shall **must** not be located in a closed depression where surface runoff or subsurface water movement will have an adverse effect on on-site soil absorption system performance or in areas subject to ponding.

(4) For soil absorption system sites with a slope of greater than one-half percent ($1/2\%$), no part of the dispersal area may slope toward the soil absorption system.

(Indiana Department of Health; [410 IAC 6-10.1-62](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 60. 410 IAC 6-10.1-63 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-63 Drainage

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 63. (a) A surface diversion:

(1) shall **must** be constructed if drainage from an adjoining upslope landscape affects the soil absorption system site;

(2) shall **must** have a positive grade of at least two and four-tenths (2.4) inches per one hundred (100) feet, or a grade of two-tenths percent (0.2%);

(3) shall **must** be of sufficient depth and width to move surface water away from the soil absorption system;

(4) shall **must** be located:

(A) for subsurface trench on-site sewage systems that do not require additional soil cover, at least ten (10) feet from the soil absorption system, as measured from the downslope edge of the surface diversion to the outside edge of the nearest soil absorption system trench;

(B) for subsurface trench on-site sewage systems that require additional soil cover, at least ten (10) feet from the soil absorption system, as measured from the downslope edge of the surface diversion to the upslope edge of the additional soil cover; or

(C) for elevated sand mound on-site sewage systems, at least ten (10) feet from the soil absorption system, as measured from the downslope edge of the surface diversion to the upslope edge of the soil cover; and

(5) may be used in combination with an on-site subsurface drainage system.

(b) When a subsurface drainage system is constructed, it shall **must** be sufficiently deep to lower a seasonal high water table as required in subsection (d) or (e).

(c) ~~The subsurface drain shall surround the on-site sewage system.~~ **If the site has a slope of equal to or less than two percent (2%), the subsurface drain shall **must** surround the on-site sewage system. If the site slope exceeds two percent (2%), the subsurface drain may be constructed only on the upslope side of the on-site sewage system.**

(d) If the seasonal high water table is perched, the subsurface drain trench shall **must** be constructed at least two (2) inches into structureless massive compact clay with firm or very firm consistence, glacial till, or fragipan whenever site and soil conditions permit. When the drain cannot be constructed at least two (2) inches into the structureless massive compact clay with firm or very firm consistence, glacial till, or fragipan, the depth of the drain shall **must** be the following unless calculations are used to determine drain depth:

(1) For trench on-site sewage systems, the invert elevation of the subsurface perimeter, interceptor, or segment drain shall **must** be at least thirty-six (36) inches below the invert elevation of any adjacent soil absorption trench bottom.

(2) For elevated sand mound on-site sewage systems, the invert elevation of the subsurface perimeter or interceptor drain shall **must** be at least thirty-two (32) inches below existing grade.

(e) If drainage calculations are used to determine drain depth, drainage formulas and calculations shall **must** be submitted to the department as part of the plan submittal, showing a lowering of the seasonal high water table:

(1) for subsurface trench on-site sewage systems, at least twenty-four (24) inches below the trench bottoms in the center of the soil absorption field; or

(2) for elevated sand mound on-site sewage systems, at least twenty (20) inches below original grade.

(f) Subsurface drainage systems shall **must** be located at soil absorption system sites as follows:

(1) All portions of a subsurface drainage system shall **must** be installed at least ten (10) feet from the outside edge of any soil absorption trench.

(2) All portions of a subsurface drainage system shall **must** be installed at least ten (10) feet from the outside edge of the INDOT Specification 23 sand.

1349 (3) Spacing of subsurface perimeter drains and segment drains installed parallel to subsurface soil absorption trench
1350 lengths, or parallel to the long axis of an elevated sand mound, along the contour of the site must be spaced as
1351 follows: for a subsurface trench system or parallel to the long axis of an elevated sand mound

1352 (A) Perimeter and segment drains must be spaced no more than less than or equal to sixty-five (65) feet
1353 apart;

1354 (B) Interceptor drains must be spaced no more than:

1355 (i) fifty-five (55) feet from the downslope edge of the most downslope subsurface soil absorption
1356 trench or the downslope edge of INDOT Spec 23 sand in an elevated sand mound; or

1357 (ii) sixty-five (65) from a downslope segment drain; and

1358 (C) A segment drain may be used in conjunction with a perimeter drain or an interceptor drain to meet drain
1359 spacing requirements;

1360 unless a greater spacing is determined through calculations.

1361 (4) The subsurface drain shall must not cross any portion of the soil absorption system.

1362 (g) The A subsurface drain pipe shall must be:

1363 (1) at least four (4) inches in diameter;

1364 (2) slotted; and

1365 (3) wrapped with a geotextile fabric with an effective opening size not smaller than two-tenths (0.2) millimeter and not
1366 larger than eighty-five hundredths (0.85) millimeter when installed in:

1367 (A) sands;

1368 (B) loamy sands;

1369 (C) sandy loams;

1370 (D) fine sandy loams;

1371 (E) loams;

1372 (F) silt loams; or

1373 (G) silts.

1374 (h) The subsurface drain trench shall must:

1375 (1) have a positive slope of at least two-tenths (0.2) foot per one hundred (100) feet when a four (4) inch drain pipe is
1376 used;

1377 (2) have a positive slope of at least one-tenth (0.1) foot per one hundred (100) feet when a six (6) inch drain pipe is used;
1378 and

1379 (3) be constructed with no sags or high points in the line.

1380 (i) A subsurface drain trench installed upslope from a commercial on-site sewage system shall must be:

1381 (1) backfilled to final grade with aggregate that meets the minimum requirements of subsection (k); or

1382 (2) filled to within six (6) inches of final grade with aggregate that meets the requirements in subsection (k) and the
1383 final six (6) inches to final grade with cover soil material.

1384 (j) A subsurface drain trench installed on sides or downslope, and segment drain trenches may be:

1385 (1) backfilled to final grade with aggregate that meets the minimum requirements of subsection (k); or

1386 (2) filled to within six (6) inches of final grade with aggregate that meets the minimum requirements of subsection (k)
1387 and the final six (6) inches to final grade with cover soil material.

1388 (k) The aggregate backfill for subsurface drain trenches shall must meet the minimum requirements of:

1389 (1) section 76 of this rule;

1390 (2) washed aggregate with a gradation in the range of INDOT Specification 8 through 11; or

1391 (3) INDOT Specification 23 sand or equivalent.

1392 (l) When INDOT Specification 23 sand is used for backfill, the drainpipe shall must be wrapped with a geotextile fabric.

1393 (m) The aggregate used as backfill in the perimeter, interceptor, or segment drain trenches described in subsections (i)(2)
1394 and (j)(2) shall must be covered with a geotextile fabric barrier that meets the minimum requirements in section 77 of this rule,
1395 in a way that prevents such a manner as to prevent the aggregate from becoming clogged with the earth fill.

1396 (n) The subsurface drain trench and the associated discharge piping shall must be constructed to permit water to flow by
1397 gravity throughout its length. No pumps or siphons shall be utilized used to effect the movement of the collected water.

1398 (o) Tile outlets shall must be provided with rodent guards.

1399
1400 (Indiana Department of Health; 410 IAC 6-10.1-63; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed
1401 Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 59. 410 IAC 6-10.1-64 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-61 On-site soil evaluation

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 64. (a) Before issuance of ~~any a~~ permit for construction of a commercial on-site sewage system or the replacement or alteration of a soil absorption system, an on-site evaluation, which ~~shall~~ includes a description of the soil profile, ~~shall must~~ be conducted.

(b) Properties of the soil at each site ~~shall must~~ be described by a **registered professional** soil scientist using the guidelines set forth in the soil manuals, technical bulletins, and handbooks of the NRCS.

~~(c) A minimum of~~ **At least three (3) soil profile descriptions shall be completed in the area of the soil absorption field and shall provide good coverage of the entire soil absorption field area. For large commercial systems, additional soil profile descriptions may be necessary.**

~~(e)~~ **(d)** Soil profile information ~~shall must~~ be recorded:

(1) to a depth of five (5) feet; or

(2) until a **limiting** layer is encountered ~~that cannot be readily penetrated;~~

whichever is shallower.

~~(d)~~ **(e)** The on-site evaluation ~~shall must~~ be conducted before application and plan submittal.

~~(e)~~ **(f)** The information in the written on-site soils evaluation report ~~shall must~~ include the following:

(1) For topographic information, the following:

(A) The slope and slope aspect.

(B) Surface drainage characteristics and patterns including swales, ditches, and streams.

(C) The proposed or existing location of house and well or other water supply.

(D) The location of other major features or structures.

(E) The location of soil evaluation sites related to in-relation-to a minimum of two (2) fixed reference points, when possible, but at least one fixed reference point must be identified on all sites, and appropriate soil type boundaries.

(F) The topographic position of the site.

(2) For soil characteristics, the following:

(A) Parent material.

(B) The approximate depths of soil horizons.

(C) The soil color, structure, and texture at each horizon.

(D) The horizon designation for each horizon.

(E) The depth to any layer that has a soil loading rate greater than seventy-five hundredths (0.75) gallons per day per square foot or less than twenty-five hundredths (0.25) gallons per day per square foot.

(F) The depth to seasonal high ground water ~~as~~ indicated by soil wetness characteristics.

(G) The depth to bedrock.

(H) The soil consistence at each horizon.

(I) The soil effervescence at each horizon.

(J) The percent coarse fragments at each horizon.

(K) The percent clay at each horizon, by field estimation, for any horizon where the percent coarse fragments is greater than thirty-five percent (35%) by volume.

(L) The presence or absence of roots.

(M) Frost penetration depth, if applicable.

~~(f)~~ **(g)** When soil characteristics are to be used for calculations for the depth of a subsurface drainage system, the following information ~~shall must~~ be recorded to a depth of eighty (80) inches:

(1) The information required in subsection ~~(e)~~ **(f)**(2).

(2) Particle size family.

(h) All On-site soil evaluation reports created from the evaluation of the soil profiles that are to be used for obtaining an on-site sewage system construction permit shall must be signed by the registered professional soil scientist and submitted directly to the department by the soil scientist.

(Indiana Department of Health; 410 IAC 6-10.1-64; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed

Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 62. 410 IAC 6-10.1-65 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-65 Construction of sewers

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 65. (a) Sewers beginning three (3) feet outside the foundation walls of buildings **shall must** be constructed of piping that meets the minimum requirements of section 75(a)(1) or 75(a)(2) of this rule.

(b) Sewers serving individual units may connect to the main sewer by wye fittings. Sewers serving more than one (1) unit must connect to the main sewer at a manhole.

(c) Sewers **shall must** be laid to a uniform grade and at a slope equal to or greater than the minimum slopes shown in Table IV as follows and may not be increased in size for the sole purpose of reducing the required slope:

Table IV – Minimum Slope for Sewers	
Sewer Size	Minimum Slope in Feet per 100 Feet*
4 inch diameter (building sewer only)	1.33
6 inch diameter	0.61 0.67
8 inch diameter	0.40
10 inch diameter	0.28
12 inch diameter	0.22
15 inch diameter	0.15
16 inch diameter	0.14
18 inch diameter	0.12
21 inch diameter	0.10
24 inch diameter	0.08

*Based on the Hazen-Williams formula using C = 140.

(d) No outside building sewer **shall may** be less than four (4) inches in diameter. Minimum sewer diameters will vary upward from four (4) inches according to use. Because of slope, cleaning, and maintenance problems, installation of four (4) inch sewers is unacceptable except where they can adequately serve a building or facility having very low anticipated sewage flows. Sewers shall be adequately sized to carry average and intermittent peak flows. Soil, waste, vent, and drain piping inside the building **shall must** comply with the Indiana Plumbing Code (675 IAC 16).

(e) Adequate sewer bedding **shall must** be provided. ~~All Building~~ **All Building** sewers **shall must** be buried with at least two (2) feet of cover to protect them from freezing. Force mains must be ~~buried deep enough~~ **installed below the frost line as listed in section 94(d), Table IX** to prevent freezing unless the lift station and force main can be designed such that the force main will drain completely.

(f) Sewers proposed under driveways, parking slabs, or other heavily loaded areas, **shall must** be adequately constructed to prevent damage or breaking.

(g) Manholes must be installed at the end of each line, at all changes in grade, size, or alignment, at all intersections, and at intervals not greater than four hundred (400) feet for sewers fifteen (15) inches diameter or less. Intervals ~~not greater less~~ than five hundred (500) feet are allowed for sewers eighteen (18) inches or greater in diameter.

(h) A drop manhole should be installed where a sewer enters the manhole twenty-four (24) inches or more above the manhole invert. The outside drop connection constructed with a drop manhole should be encased in concrete.

(i) The minimum acceptable diameter for manholes is forty-eight (48) inches. The access opening into the manhole must be at least twenty-two (22) inches in diameter.

(j) Cleanouts may be substituted for manholes on short sewer runs. Cleanouts must:

(1) be the same diameter as the sewer they are to serve; and

(2) extend to grade.

A cleanout may be installed at the terminus of a sewer provided that a manhole is within three hundred (300) feet of the terminus.

(Indiana Department of Health; [410 IAC 6-10.1-65](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

1497 SECTION 63. 410 IAC 6-10.1-67 IS AMENDED TO READ AS FOLLOWS:
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1499

1500 410 IAC 6-10.1-67 Sewage lift stations and force mains

1501 Authority: IC 16-19-3-4

1502 Affected: IC 16-19-3-4

1503

1504 Sec. 67. (a) Sewage lift stations **must**:

1505 (1) ~~must~~ be protected from damage by a one hundred (100) year flood event; and

1506 (2) ~~shall~~ remain fully operational and accessible by maintenance vehicles during a twenty-five (25) year flood event and
1507 all weather conditions.

1508 (b) Submersible pumps and motors must be designed specifically for raw sewage use. Pumps must be readily removable
1509 for maintenance, repair, or replacement by installation with guide rail systems, breakaway flanges, and lifting chains.

1510 (c) Except where grinder or cutter pumps are used, raw sewage pumps ~~shall must~~ be capable of passing spheres ~~of~~ at
1511 least three (3) inches in diameter. Effluent pumps may be used in lift stations following septic tanks.

1512 (d) At least two (2) pumps shall be provided in each lift station. Pumps shall be of the same capacity. Each ~~shall must~~ be
1513 capable of handling at least the expected maximum flow to the lift station.

1514 (e) Controls other than float switches ~~shall must~~:

1515 (1) be installed outside the lift station;

1516 (2) comply with the Indiana Electrical Code (675 IAC 17); and

1517 (3) include automatic pump alternators.

1518 Encapsulated mercury float type switches are preferred over other types. Motor controls ~~shall must~~ be protected by a conduit seal
1519 or other appropriate measures to exclude moisture from the wet well. Power cords ~~shall must~~ meet the requirements of the Mine
1520 Safety and Health Administration for trailing cables. Ground fault interruption protection ~~shall must~~ be used to de-energize the
1521 circuit in event of any failure of the cable.

1522 (f) An audio-visual alarm system ~~shall must~~ be provided to indicate power failure, pump failure, excessive water level
1523 or any cause of pump station malfunction. The alarm ~~shall must~~ be:

1524 (1) located in an area where it can be observed twenty-four (24) hours a day; and

1525 (2) powered by a circuit separate from the pump circuit.

1526 (g) Overflows from lift stations are not permitted.

1527 (h) Pump discharge lines ~~shall must~~ include suitable shutoff and check valves. Check valves ~~shall must~~ be located
1528 between the pump and the shutoff valve ~~and only in the horizontal portion of the line~~. Check valves should be omitted in discharge
1529 lines connected individually to pumps where the lines must drain back into the pump station wet well between ~~pumpingsdoses~~.

1530 (i) Force mains should be sized to provide a scouring velocity of at least two (2) feet per second at the design capacity of
1531 the pump.

1532 (j) Automatic air relief valves ~~shall must~~ be installed at high points in the force main to prevent air locking.

1533 (k) Separation distances between sanitary force mains and water lines ~~shall must~~ be **as specified in section 61 of this**
1534 **rule**. ~~the same as required for gravity sewers. A ten (10) foot horizontal separation is required between parallel water lines and~~
1535 ~~force mains, and an eighteen (18) inch vertical separation is required where force mains cross water lines.~~

1536 (l) ~~Force mains crossing other properties will have to be kept accessible through construction and maintenance easements.~~

1537

1538 *(Indiana Department of Health; 410 IAC 6-10.1-67; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1539 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1540

1541 SECTION 64. 410 IAC 6-10.1-68 IS AMENDED TO READ AS FOLLOWS:

1542

1543 410 IAC 6-10.1-68 Septic tanks: general requirements

1544 Authority: IC 16-19-3-4

1545 Affected: IC 16-19-3-4

1546

1547 Sec. 68. (a) Septic tanks ~~shall must~~ be:

1548 (1) watertight and constructed of ~~durable material such as~~ **pre-cast concrete, fiber-reinforced polyester, or**
1549 **thermoplastic material as described in IAPMO Z1000 2019 section 5, 6, or 7** ~~fiberglass, polyethylene, or~~
1550 ~~polypropylene; and~~

- 1551 (2) protected from corrosion.
- 1552 (b) Cast in place, concrete block, wood, or metal septic tanks are prohibited.
- 1553 (c) Every septic tank ~~shall~~ **must** have a minimum capacity below the water line to provide at least forty-eight (48) hours
1554 detention time.
- 1555 (d) ~~All~~ Septic tank effluent including effluent from tanks fitted with aeration units for aerobic digestion ~~shall~~ **must**
1556 discharge into a soil absorption system or other treatment system ~~as~~ approved in accordance with section 49~~(b)~~(i) of this rule.
- 1557 (e) Two-compartment tanks ~~shall~~ **must** meet the following requirements:
- 1558 (1) The liquid volume of the first compartment ~~shall~~ **must** be between one-half (~~1/2~~^{1 1/2}) and two-thirds (~~2/3~~^{2 2/3}) of the total
1559 tank volume.
- 1560 (2) The divider wall ~~shall~~ **must** be:
- 1561 (A) monolithically cast in the tank; or
- 1562 (B) permanently secured within the tank body using noncorrosive fasteners or fittings.
- 1563 (3) The transfer port or ports between the compartments ~~shall~~ **must** consist of **at least** two (2) ~~or more~~ openings with a
1564 combined area of at least fifty (50) square inches. A continuous port across the width of the divider wall is also acceptable.
- 1565 (4) The transfer port or ports ~~shall~~ **must** be located in the middle twenty-five percent (25%) of the liquid depth.
- 1566 (5) An access opening meeting the requirements of section 69(o) of this rule must be provided above each compartment,
1567 including a riser meeting the requirements of section 69(p) of this rule, for maintenance pumping above each
1568 compartment.
- 1569 (f) When multiple tanks are used in series, no single tank may be less than seven hundred fifty (750) gallons. The larger
1570 of the two (2) tanks must be upstream of the other.
- 1571 (g) When sewage is pumped into a septic tank using a grinder pump:
- 1572 (1) a two-compartment tank must be used with the sewage pumped into the first compartment; or
- 1573 (2) two (2) tanks in series must be used, with the sewage pumped into the first tank.
- 1574 (h) Tanks fitted with aeration units for aerobic digestion ~~shall~~ **must**:
- 1575 (1) conform to NSF/ANSI Standard ~~40-2010~~ **40-2023**, Residential Wastewater Treatment Systems, for Class I plants or
1576 ~~to~~ standards of an equivalent third party product testing laboratory acceptable to the department that meet or exceed the
1577 NSF/ANSI standards;
- 1578 (2) bear a current registered certification mark;
- 1579 (3) provide a minimum aerobic treatment capacity to properly process the design daily flow;
- 1580 (4) be preceded by a septic tank that meets all ~~of~~ the requirements of this section and sections 69 and 71 of this rule; and
- 1581 (5) discharge into a soil absorption system or other treatment system ~~as~~ approved in accordance with section 49~~(b)~~(i) of
1582 this rule.
- 1583 (i) Water softener backwash ~~shall~~ **must** be discharged to:
- 1584 (1) the building sewer;
- 1585 **(2) an effluent or sewage lift station;**
- 1586 ~~(2) (3)~~ a secondary treatment device;
- 1587 ~~(3) (4)~~ the effluent sewer on the downstream side of either the septic tank or ~~the~~ secondary treatment device;
- 1588 ~~(4) (5)~~ the dosing tank serving the soil absorption system; or
- 1589 ~~(5) (6)~~ a separate soil absorption system constructed specifically for the water softener backwash.

1590
1591 *(Indiana Department of Health; 410 IAC 6-10.1-68; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1592 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1593
1594 SECTION 65. 410 IAC 6-10.1-69 IS AMENDED TO READ AS FOLLOWS:

1595
1596 410 IAC 6-10.1-69 Septic tanks: construction details

1597 Authority: IC 16-19-3-4

1598 Affected: IC 16-19-3-4

1599
1600 Sec. 69. (a) The minimum water depth in any compartment ~~shall~~ **must** be thirty (30) inches.

1601 (b) The maximum water depth for calculating septic tank capacity ~~shall~~ **must** not exceed six and one-half (6 ¹/₂) feet.

1602 (c) The inlet baffle or sanitary tee ~~shall~~ **must** extend at least:

1603 (1) eight (8) inches below the liquid level; and

1604 (2) to the top of the inlet sewer.

1605 (d) ~~All~~ New septic tanks must be provided with an outlet filter that meets or exceeds the requirements of section 72 of
1606 this rule.

1607 (e) ~~Any~~ A septic tank not provided with an outlet filter **shall must** be provided with:

1608 (1) an outlet baffle or sanitary tee that extends below the liquid level at least ten (10) inches, but not more than forty
1609 percent (40%) of the tank liquid depth; and

1610 (2) a gas deflection baffle that is:

1611 (A) constructed of durable materials not subject to corrosion or decay; and

1612 (B) configured to deflect rising gas bubbles toward the interior of the tank.

1613 (f) There **shall must** be at least one (1) inch clear space between the underside of the septic tank lid and the top of ~~the~~
1614 inlet and outlet baffles or tees.

1615 (g) Scum storage capacity (space between the liquid level and the top of the outlet baffle or tees) **shall must** be not less
1616 than twelve and one-half percent (~~12.5%~~) (**12 ½%**) of the liquid depth of the septic tank.

1617 (h) The inlet baffle **shall must** not be more than twelve (12) inches nor less than four (4) inches from the inside of the
1618 inlet end of the tank. The outlet baffle **shall must** not be more than twelve (12) inches nor less than four (4) inches from the outlet
1619 end of the septic tank. Baffles **shall must** be constructed of durable materials not subject to corrosion or decay.

1620 (i) The bottom of the septic tank inlet **shall must** not be less than two (2) inches nor more than four (4) inches above the
1621 liquid level.

1622 (j) Reinforced concrete septic tanks **shall must** be constructed of concrete **designed to withstand all structural,**
1623 **hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and** with a compressive strength of four thousand (4,000)
1624 pounds per square inch or greater.

1625 (k) Concrete septic tank walls **shall must** be at least two and one-half (~~2 1/2~~ **2 ½**) inches or greater in thickness. The design
1626 must allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1627 (l) Concrete septic tank bottoms **shall must** conform to the specifications set forth for septic tank walls.

1628 (m) Concrete septic tank tops **shall must** be a ~~minimum of at least~~ four (4) inches in thickness and reinforced with three-
1629 eighths (3/8) inch reinforcing rods in a twelve (12) inch grid or equivalent.

1630 (n) Type III fibers, **meeting ASTM C 1116-23** are permitted only as a secondary reinforcing material. Fiber additions
1631 will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

1632 (o) ~~All~~ Access openings **shall must** meet the following requirements:

1633 (1) At least one (1) opening eighteen (18) inches in minimum dimension per compartment for pumping access.

1634 (2) An access opening **shall must** be located over each of the following:

1635 (A) The inlet.

1636 (B) The outlet.

1637 (C) The sanitary tee or baffle, if present, on the partition or divider wall of a two-compartment septic tank.

1638 (3) ~~All~~ Access openings **shall must** be sized and positioned in ~~such~~ a way ~~as to allow~~ **that allows** for maintenance,
1639 cleaning, and servicing of septic tanks and outlet filters.

1640 (p) ~~All~~ Risers **shall must** meet the following requirements:

1641 (1) Risers and riser covers **shall must** be made of corrosion resistant materials and withstand design external loads.

1642 (2) The lower section of the riser assembly **shall must** be:

1643 (A) cast into the tank lid; or

1644 (B) sealed to the top of the tank with butyl sealant meeting ASTM C 990-09**25** to provide a watertight seal.

1645 (3) ~~All~~ Risers **shall must** be fitted with watertight, securely fastened covers.

1646 (q) Pipe connectors **shall must** be provided that meet the following requirements:

1647 (1) Each pipe penetration **shall must** be sealed with a resilient rubber pipe connector that uses an expansion ring, a tension
1648 band, or a take-up device for mechanically compressing the resilient portion of the connector against the pipe.

1649 (2) ~~All~~ Metallic mechanical devices, including expansion rings, tension bands, take-up devices, and screws,
1650 **shall must** be constructed of series 300 stainless steel.

1651 (3) Connectors **shall must** conform to:

1652 (A) ASTM C 1644-06**24**, Standard Specification for Resilient Connectors Between Reinforced Concrete On-
1653 Site Wastewater Tanks and Pipes; or

1654 (B) ASTM C 923-08**20(2025)**, Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box
1655 Sections Using Preformed Flexible Joint Sealants.

1656
1657 *(Indiana Department of Health; 410 IAC 6-10.1-69; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*
1658 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*

1659 *readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#)*

1660 SECTION 66. 410 IAC 6-10.1-70 IS AMENDED TO READ AS FOLLOWS:

1662 410 IAC 6-10.1-70 Dosing tanks

1663 Authority: IC 16-19-3-4

1664 Affected: IC 16-19-3-4

1665 Sec. 70. (a) Dosing tanks **must be**:

1666 (1) ~~must be~~ watertight and constructed of durable material such as **pre-cast concrete, fiber-reinforced polyester, or**

1667 **thermoplastic material** ~~fiberglass, polyethylene, or polypropylene~~; and

1668 (2) ~~shall be~~ protected from corrosion.

1669 (b) Cast in place, concrete block, wood, or metal dosing tanks are prohibited.

1670 (c) Reinforced concrete dosing tanks ~~shall~~ **must** be constructed of concrete **designed to withstand all structural,**

1671 **hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and** with a **minimum** compressive strength of four

1672 thousand (4,000) pounds per square inch or greater.

1673 (d) Concrete dosing tank walls ~~shall~~ **must** be at least two and one-half (2 $\frac{1}{2}$) inches or greater in thickness. The design

1674 ~~shall~~ **must** allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1675 (e) The required liquid holding capacity of the dosing tank ~~shall~~ **must** not be considered as any portion of the required

1676 liquid volume of the septic tank.

1677 (f) The liquid holding capacity of a dosing tank must equal the dose volume required by this rule for each type of soil

1678 absorption system, in addition to the volume of liquid that will drain back from any effluent force main when pumping ~~ceases~~ **stops**.

1679 Additional capacity must be provided to:

1680 (1) keep the dosing tank effluent pump submerged at all times; and

1681 (2) provide sufficient freeboard for a high water alarm **and a lag float, if required.**

1682 (g) Dosing tanks ~~shall~~ **must** be provided with pipe connectors that meet the following requirements:

1683 (1) Each pipe penetration ~~shall~~ **must** be sealed with a flexible, resilient rubber pipe connector that uses an expansion ring,

1684 a tension band, or a take-up device for mechanically compressing the resilient portion of the connector against the pipe.

1685 (2) ~~All~~ **Non**metallic mechanical devices, including expansion rings, tension bands, take-up devices, and screws, ~~shall~~ **must**

1686 be constructed of series 300 stainless steel.

1687 (3) Conform to:

1688 (A) ASTM C 1644-~~0624~~, Standard Specification for Resilient Connectors Between Reinforced Concrete On-

1689 Site Wastewater Tanks and Pipes; or

1690 (B) ASTM C 923-~~0820~~(**2025**), Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box

1691 Sections Using Preformed Flexible Joint Sealants.

1692 (h) Each dosing tank ~~shall~~ **must** be fitted with an effluent **or sewage** pump sized in conformance with section 73 **of this**

1693 **rule** and with section 84(b), 86(d), 86(q), 90(b), or 90(j) of this rule, whichever is applicable, with controls and ~~with~~ a high water

1694 alarm switch set at a level above the design high water mark. The alarm ~~shall~~ **must**:

1695 (1) be on a separate circuit from the effluent **or sewage** pump; and

1696 (2) include an audible and a visible alarm.

1697 (i) Switches that are comparable to mercury float level switches ~~shall~~ **must** be used for dosing tank **effluent** pump start

1698 and stop controls and for high water alarms.

1699

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1702 *(Indiana Department of Health; [410 IAC 6-10.1-70](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*

1703 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

1704

1705 SECTION 67. 410 IAC 6-10.1-70.1 IS ADDED TO READ AS FOLLOWS:

1706

1707 **410 IAC 6-10.1-70.1 Sewage Holding Tanks**

1708 Authority: IC 16-19-3-4

1709 Affected: IC 16-19-3-4

1710

1711 Sec. **70.1**. (a) A sewage holding tank is an alternative method of sewage disposal in accordance with IC 16-41-25-

1712 **9.**

1713 (b) Sewage holding tanks must be:

1714 (1) ~~must be~~ watertight and constructed of pre-cast concrete, fiber-reinforced polyester, or thermoplastic material;

1715 and

1716 (2) ~~shall be~~ protected from corrosion.

1717 (c) A temporary sewage holding tank may be used:

1718 (1) where necessary to prevent continued discharge of sewage from a failed existing commercial on-site sewage

1719 system;

1720 (2) as a temporary storage facility where occupancy of the commercial facility must continue while an existing

1721 commercial on-site sewage system is being replaced or renovated; or

1722 (3) when soil conditions exist that preclude the prompt construction of a soil absorption system on a site that has

1723 already received a construction permit.

1724 (d) All sewage holding tanks ~~shall~~ must have a minimum capacity of:

1725 (1) A septic tank, or a septic tank and a dosing tank, as required by this rule for tanks that will eventually precede

1726 a soil absorption field; or

1727 (2) For permanent sewage holding tanks, the greater of

1728 (A) one thousand (1,000) gallons; or

1729 (B) at least three (3) times the design daily flow of the commercial facility as determined by this rule.

1730 (e) Reinforced concrete sewage holding tanks must be constructed of concrete designed to withstand all structural,

1731 hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and with a compressive strength of four

1732 thousand (4,000) pounds per square inch or greater.

1733 (f) Concrete sewage holding tank walls and bottoms must be at least two and one-half (2 1/2) inches or greater in

1734 thickness. The design shall allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1735 (g) Concrete sewage holding tank tops shall be ~~a minimum of~~ at least four (4) inches in thickness and reinforced

1736 with three-eighths (~~3/8~~)(³/₈) inch reinforcing rods in a twelve (12) inch grid or equivalent.

1737 (h) ASTM C 1116-23 type III fibers are permitted only as a secondary reinforcing material. Fiber additions will

1738 be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing

1739 material.

1740 (i) ~~All~~ Sewage holding tanks shall have at least one (1) opening eighteen (18) inches in minimum diameter for

1741 pumping access positioned in a way as to allow for maintenance, cleaning and servicing.

1742 (j) ~~All~~ Holding tanks ~~shall be~~ required to have an operating permit issued by the department or local health

1743 department.

1744 (k) ~~All~~ Receipts from pumping and maintenance of a sewage holding tank, and other documents for repair or

1745 modification of a sewage holding tank, ~~must~~ be submitted to the department or local health department, whomever

1746 issued the operating permit, within thirty (30) days of the service provided or in a time frame approved by the

1747 department or local health department.

1748 (l) In the event that a sewage holding tank is not operated in a safe and sanitary manner and in accordance with

1749 IC 16-41-25-9 and this rule, the department or local health department may require the commercial facility to:

1750 (1) ~~Connect~~ to sanitary sewer if the sanitary sewer is available within three hundred (300) feet of the affected

1751 property line and ~~is~~ available for connection at a construction cost and connection fee estimated not to exceed one

1752 hundred fifty percent (150%) of the cost estimated for installing an on-site sewage system to serve the commercial

1753 facility; or

1754 (2) ~~Install~~ an on-site sewage system with a soil absorption field in compliance with this rule or connect to an

1755 existing soil absorption system that has not failed.

1756

1757 (Indiana Department of Health; 410 IAC 6-8.3-**70.1**)

1758

1759 SECTION 68. 410 IAC 6-10.1-71 IS AMENDED TO READ AS FOLLOWS:

1760

1761 410 IAC 6-10.1-71 Septic tanks and dosing tanks, and sewage holding tanks: installation and maintenance

1762 Authority: IC 16-19-3-4

1763 Affected: IC 16-19-3-4

1764

1765 Sec. 71. (a) Septic tanks, ~~and~~ dosing tanks, and sewage holding tanks shall be installed level on:

1766 (1) undisturbed soil;

- 1767 (2) sand;
- 1768 (3) aggregate not larger than one and one-half (1 ~~1~~^{1 1/2}) inches in diameter; or
- 1769 (4) an engineered base.
- 1770 (b) ~~All~~ Drain holes in septic, ~~tanks, and~~ dosing, ~~tanks, and~~ **sewage holding tanks** shall be:
- 1771 (1) fitted with a threaded fitting, cast in place, and plugged with a threaded plug; or
- 1772 (2) plugged with an expandable pipe plug with a wing nut.
- 1773 (c) When the top of the septic tank, ~~or~~ dosing tank, **or sewage holding tank** is installed at or above grade, all access
- 1774 openings shall be fitted with watertight, securely fastened covers.
- 1775 (d) When the top of the septic, ~~tank, or~~ dosing, ~~tank, or~~ **sewage holding tank** is installed below grade, risers ~~shall~~ **must**:
- 1776 (1) be installed over access openings used for pumping and ~~for~~ maintenance of the outlet filter in the septic tank;
- 1777 (2) be large enough for access to the tank through the access opening in the top of the septic, ~~tank, or~~ dosing, ~~tank, or~~ **sewage holding tank** to clean the tanks and ~~to~~ maintain floats, sensors, filters and pumps;
- 1778 (3) have the lower section sealed to the top of the tank with butyl sealant meeting ASTM C 990-09²⁵ to provide a
- 1779 watertight seal, if the riser assembly is not cast into the tank lid;
- 1780 (4) have joints between riser sections sealed in accordance with the manufacturer's instructions so as to be watertight;
- 1781 (5) extend to or above final grade; ~~and~~
- 1782 (6) be fitted with a watertight cover securely fastened to the riser; ~~and~~
- 1783 (7) ~~be fitted with~~ **have a secondary childproof safety device under each riser lid that extends to the surface.**
- 1784 (e) Septic tanks and dosing tanks shall not be installed with the top of the riser below the RFE.
- 1785 (fe) ~~All~~ **The** joints in the sewer connecting septic tanks in series, ~~or~~ septic tanks to dosing tanks, **or sewage holding**
- 1786 **tanks shall must** be sealed in accordance with the manufacturer's instructions ~~in order~~ to be watertight and ~~to~~ withstand the
- 1787 pressures exerted on them.

1788 **(f) Tanks must be installed using the manufacturer's recommended buoyancy controls when conditions necessitate buoyancy control.**

1789 *(Indiana Department of Health; 410 IAC 6-10.1-71; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*

1790 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1791 SECTION 69. 410 IAC 6-10.1-72 IS AMENDED TO READ AS FOLLOWS:

1792 410 IAC 6-10.1-72 Outlet filters

1793 Authority: IC 16-19-3-4

1794 Affected: IC 16-19-3-4

- 1800 Sec. 72. (a) An outlet filter ~~shall~~ **must** be installed in the septic tank of new on-site sewage systems and existing on-site
- 1801 sewage systems requiring a new septic tank.
- 1802 (b) For on-site sewage systems requiring repair, or soil absorption systems requiring replacement, the department may
- 1803 require an outlet filter. The outlet filter, if required by the department, must meet the requirements of this section.
- 1804 (c) Outlet filters ~~shall~~ **must** be located in the outlet end of:
- 1805 (1) a single septic tank when not used in series;
- 1806 (2) the second compartment of two-compartment septic tanks;
- 1807 (3) the last septic tank when two (2) or more tanks are used in series; or
- 1808 (4) a secondary watertight structure located after the last septic tank ~~prior to~~ **before** a dosing tank, **an effluent lift station,**
- 1809 distribution box, or secondary treatment unit.
- 1810 (d) An access opening of eighteen (18) inches in minimum dimension ~~shall~~ **must** be:
- 1811 (1) located over the outlet filter; and
- 1812 (2) provided with a riser to grade that meets the minimum requirements of section 69(o) and 69(p) of this rule.
- 1813 (e) Outlet filters ~~shall~~ **must**:
- 1814 (1) conform to NSF/ANSI Standard 46-2010~~a~~²⁰²³, Evaluation of Components and Devices Used in Wastewater
- 1815 Treatment Systems, maintain a current product listing with an ANSI accredited third-party certifier, and bear a listing
- 1816 mark;
- 1817 (2) be rated by the manufacturer for a daily flow equal to or greater than the **required** liquid capacity of the septic tank(s);
- 1818 (3) prevent the passage of solids larger than one-eighth (¹/₈) ~~of an~~ inch;
- 1819 (4) have inlets and outlets of at least four (4) inches in diameter;
- 1820

- 1821 (5) function without a bypass of unfiltered sewage, sludge, or scum, during normal use;
- 1822 (6) be made of a noncorrosive material designed for use in sewage applications;
- 1823 (7) maintain structural integrity, not tearing or distorting so as to make it inoperable during normal operation, throughout
- 1824 the life of the device; and
- 1825 (8) have removable outlet filter cartridges.
- 1826 (f) The outlet filter housing **shall must**:
- 1827 (1) connect to the outlet pipe or structure wall with noncorrosive fasteners;
- 1828 (2) extend at least five (5) inches above the liquid level of the tank;
- 1829 (3) be installed so the bottom of the filter inlet extends below the liquid level at least ten (10) inches, but not more than
- 1830 forty percent (40%) of the septic tank liquid depth;
- 1831 (4) include a gas deflection device that remains in place when the filter cartridge is removed; and
- 1832 (5) be solvent welded to a PVC Schedule 40 outlet pipe that meets the minimum requirements of section 75(a)(1) or
- 1833 75(a)(2) of this rule, creating a watertight and mechanically sound joint.
- 1834 (g) A filter alarm may be installed in the septic tank to indicate when the outlet filter is in need of service.
- 1835 (h) An outlet filter with cartridge **shall must** remain in service for the life of the septic tank.
- 1836 (i) Outlet filter manufacturers shall provide installation and maintenance instructions with each outlet filter. Outlet filters

1837 **shall must** be:

- 1838 (1) installed according to manufacturer's recommendations;
- 1839 (2) located so they do not interfere with pumping and cleaning of the septic tank; and
- 1840 (3) placed to allow accessibility for routine maintenance without entering the septic tank or outlet structure if separate
- 1841 from the septic tank.
- 1842 (j) Outlet filters **shall must** be serviced according to the manufacturer's service recommendations, but ~~no~~ **not** less
- 1843 frequently than each time the septic tank is cleaned, as follows:
- 1844 (1) The outlet filter **shall must** be:
- 1845 (A) cleaned and washed so ~~that~~ the filter waste enters the septic tank; or
- 1846 (B) exchanged with a clean filter.
- 1847 (2) All contaminated ~~effluent~~ **outlet** filters **shall must** be treated as untreated sewage and handled properly during the
- 1848 cleaning or exchange process.

1849
 1850 *(Indiana Department of Health; 410 IAC 6-10.1-72; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); filed Apr 17,*
 1851 *2014, 10:10 a.m.: [20140514-IR-410130351FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#);*
 1852 *readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

1853 SECTION 70. 410 IAC 6-10.1-73 IS AMENDED TO READ AS FOLLOWS:

1854
 1855 410 IAC 6-10.1-73 Effluent pumps

1856 Authority: IC 16-19-3-4
 1857 Affected: IC 16-19-3-4

1858
 1859 Sec. 73. (a) ~~All~~ Effluent pumps **shall must** be:

- 1860 (1) submersible pumps suitable for use in a corrosive atmosphere;
- 1861 (2) sized to deliver the total design flow rate while meeting the total dynamic head requirements of the on-site sewage
- 1862 system;
- 1863 (3) connected to pump discharge piping that is adequately secured; and
- 1864 (4) installed in ~~such a manner as to allow~~ **way that allows** for removal without entering ~~the dosing tank or~~ dewatering
- 1865 the dosing tank.

1866 (b) Duplex pumps **shall must** be used for flows greater than seven hundred fifty (750) gallons per day.

1867 (c) Effluent pumps **shall must** be provided with a suitable means of quick, convenient disconnection from the discharge

1868 piping, as follows:

- 1869 (1) Fittings and valves **shall must** be of compatible corrosion resistant material.
- 1870 (2) A quick disconnect coupling, breakaway flange, or similar disconnect device **shall must** be provided for each pump
- 1871 discharge pipe.
- 1872 (3) Quick disconnect couplings and valves **shall must** be readily accessible from the ground surface without entering the
- 1873 dosing tank.
- 1874

1875 (4) Submersible pumps shall must be provided with a corrosion resistant lifting apparatus such as a rope or chain to
1876 facilitate removal of the pump. For projects involving flows greater more than seven hundred fifty (750) gallons per day,
1877 pumps must be mounted on guide rails manufactured to withstand the corrosive environment of a dosing tank. **Guide
1878 rails are not required if documentation is provided with the construction plan submittal that demonstrates each
1879 pump weighs less than fifty (50) pounds and that each pump will not be installed deeper than eight (8) feet below
1880 grade.**

1881 (d) ~~All~~ floats for pump operation shall must be mounted according to manufacturer's specifications using fasteners
1882 manufactured for that purpose.

1883 (e) Controls other than liquid level sensors shall must not be located within the dosing tank.

1884 (f) Junction boxes shall must be rated as a NEMA 4X, National Electrical Manufacturers Association, NEMA 250-
1885 ~~2008~~2020. ~~All~~ The connectors to the junction box shall must form a watertight seal:

1886 (1) to the junction box; and

1887 (2) between connector openings and incoming wires.

1888 (g) ~~Any~~ A connector not used for wiring shall must be fitted with a watertight plug.

1889
1890 *(Indiana Department of Health; 410 IAC 6-10.1-73; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed
1891 Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
1892

1893 SECTION 71. 410 IAC 6-10.1-74 IS AMENDED TO READ AS FOLLOWS:

1894 410 IAC 6-10.1-74 Distribution box specifications

1895 Authority: IC 16-19-3-4

1896 Affected: IC 16-19-3-4

1897
1898
1899 Sec. 74. (a) Concrete distribution boxes shall must be constructed of concrete with a compressive strength of four
1900 thousand (4,000) pounds per square inch or greater. Other materials may be considered on a case-by-case basis. ~~All materials
1901 must:~~

1902 **(b) The distribution box material shall:**

1903 **(1) be watertight;**

1904 ~~(1)~~ **(2)** be resistant to corrosion and decay; and

1905 ~~(2)~~ **(3)** have sufficient structural strength to contain sewage and resist lateral compressive and bearing loads.

1906 ~~(b)~~ **(c)** The minimum interior dimension of a distribution box shall must be twelve (12) inches.

1907 ~~(c)~~ **(d)** The distribution box **or the top of the distribution box riser shall must** be fitted with a watertight, **securely
1908 fastened** removable lid for access. ~~The distribution box may be fitted with a riser to the ground surface. The riser joints and the
1909 lid connection to the riser must be watertight.~~

1910 **(e) For all new distribution boxes, when more than one outlet of a distribution box is used to distribute effluent
1911 to a soil absorption field and the top of the distribution box is will be installed below final grade, a riser must be installed
1912 over the box and extend to or above final grade. The joints between riser sections shall must be watertight.**

1913 ~~(e)~~ **(f)** Distribution boxes must be stabilized ~~so as to prevent movement during installation and operation.~~

1914 ~~(d)~~ ~~(f)~~ **(g)** The interior bottom of the distribution box shall must be at least four (4) inches below the invert elevation of
1915 the effluent ports. ~~A minimum of~~ **At least** eight (8) inches freeboard above the invert elevation of the effluent port shall must be
1916 provided.

1917 ~~(e)~~ ~~(g)~~ **(h)** The influent port shall must be located or baffled to prevent unequal distribution of effluent to the distribution
1918 system **as follows:**

1919 **(1)** If baffles are provided, the baffles and their mounts or retainers shall must:

1920 ~~(1)~~ **(A)** provide a passageway for effluent between the box bottom and the bottom edge of the baffle of not more
1921 than two (2) inches; and

1922 ~~(2)~~ **(B)** extend to one (1) inch above the top of the inlet.

1923 ~~(2)~~ **(2)** An elbow or a sanitary tee in the vertical position may be used in place of a baffle, as follows:

1924 ~~(1)~~ **(A)** If an elbow is used, the elbow must:

1925 ~~(A)~~ **(i)** be a ninety (90) degree elbow;

1926 ~~(B)~~ **(ii)** be turned down into the distribution box with the end of the elbow not more than two (2) inches
1927 above the bottom of the distribution box; and

1928 ~~(C)~~ **(iii)** include a weepvent hole in the upper part of the elbow.

1929 ~~(2)~~ (B) If a sanitary tee is used, the bottom of the sanitary tee must be not more than two (2) inches above the bottom
1930 of the distribution box and the top of the sanitary tee **must be** at least one (1) inch below the lid.

1931 ~~(g) (h)(i)~~ Each distribution box ~~shall~~ **must** be designed to split the effluent flow equally among the effluent ports. ~~All~~

1932 **The effluent ports shall must be:**

1933 (1) at the same elevation;

1934 (2) of the same diameter; and

1935 (3) located at an elevation at least one (1) inch lower than the influent port.

1936
1937 *(Indiana Department of Health; 410 IAC 6-10.1-74; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1938 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1940 SECTION 72. 410 IAC 6-10.1-75 IS AMENDED TO READ AS FOLLOWS:

1941
1942 410 IAC 6-10.1-75 Pipe specifications

1943 Authority: IC 16-19-3-4

1944 Affected: IC 16-19-3-4

1945
1946 Sec. 75. (a) Piping used in a commercial on-site sewage system ~~shall~~ **must** meet or exceed the following applicable
1947 standards:

1948 (1) Gravity sewer pipe and gravity effluent sewer pipe ~~shall~~ **must** meet the following standards:

1949 (A) For PVC pipe, the following:

1950 (i) ~~ASTM D 2665-12~~ **D 2665-25** for four (4) inch and six (6) inch pipe only.

1951 (ii) ~~ASTM F 891-10 SDR 35 for four (4) inch through eight (8) inch cellular core pipe with minimum~~
1952 ~~pipe stiffness of 50 (PS 50).~~

1953 (iii)(ii) ~~ASTM D 3034-08~~ **D 3034-24e1** for the following: ~~(AA) SDR 26 and SDR 35 for four (4) inch~~
1954 ~~through fifteen (15) inch pipe.~~

1955 ~~(BB) SDR 26 with gasketed compression type joints for special crossings above or below~~
1956 ~~potable water lines where the vertical clearance of eighteen (18) inches required in section~~
1957 ~~61(d)(2) of this rule cannot be met.~~

1958 (B) For ABS pipe, the following:

1959 (i) ~~ASTM D 2661-11~~ **D 2661-24** for four (4) inch and six (6) inch pipe only.

1960 (ii) ~~ASTM D 2680-01 (Reapproved 2009)~~ **D 2680-20(2025)** for eight (8) inch through fifteen (15) inch
1961 pipe.

1962 (iii) ~~ASTM D 2751-05 SDR 23.5 or SDR 35 for four (4) inch and six (6) inch pipe only.~~

1963 (C) ~~ASTM F 480-12~~ **25**, Schedule 40 and 80.

1964 (D) Waterworks grade ductile iron pipe with mechanical or tyton joints.

1965 (2) Pressure sewer, effluent force main, manifold, and pressure distribution lateral pipe ~~shall~~ **must** meet the following
1966 standards:

1967 (A) For PVC pipe, the following:

1968 (i) ~~ASTM D 2241-09~~ **25a** SDR 13.5, SDR 17, SDR 21, or SDR 26.

1969 (ii) ~~ASTM D 1785-06~~ **21a** Schedule 40, 80, or 120.

1970 (B) For ABS pipe, the following:

1971 (i) ~~ASTM D 1527-99 (Reapproved 2005) Schedule 40, 80, or 120, with solvent weld fittings.~~

1972 (ii) ~~ASTM D 2282-99 (Reapproved 2005) SDR 13.5, SDR 17, SDR 21, or SDR 26.~~

1973 **(B) ASTM D 3035-22 DR 7, 9, 11, 13.5, 17, or 21 with required heat fusion joints being made in accordance**
1974 **with ASTM F 2620-24.**

1975 (b) ~~Gasketed compression type joints~~ **Upgraded piping** must be used on ~~pressure sewers when they are located ten (10)~~
1976 ~~feet or less from a water line~~ **do not meet the required horizontal and vertical separations required in section 61(e) and (f).**

1977 (c) Soil absorption system gravity distribution laterals ~~shall~~ **must** meet one (1) of the following standards:

1978 (1) Four (4) inch diameter sewer pipe listed in subsection (a)(1) and (a)(2).

1979 (2) Four (4) inch diameter PVC pipe meeting ~~ASTM D 2729-11~~ **21**.

1980 (3) Four (4) inch diameter smooth interior wall polyethylene pipe meeting ~~ASTM F 810-07~~ **12(2024)** or AASHTO M252-
1981 **0923** Type SP.

1982 (d) Gravity distribution laterals ~~shall~~ **must** have two (2) or three (3) rows of holes separated by one hundred twenty (120)

1983 degrees with a five-eighths (~~5/8~~) inch or three-quarters (~~3/4~~) inch hole diameter with holes spaced at five (5) inches or less.
1984 (e) Pipe for subsurface drainage systems **shall must** meet the following standards for polyethylene pipe:
1985 (1) ~~ASTM F 405-05.~~
1986 (2) (1) ASTM F 667-~~12~~**16 (2021).**
1987 (3) (2) NRCS 606, ~~September 2003~~**2022.**
1988

1989 *(Indiana Department of Health; 410 IAC 6-10.1-75; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1990 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
1991

1992 SECTION 73. 410 IAC 6-10.1-76 IS AMENDED TO READ AS FOLLOWS:

1993
1994 410 IAC 6-10.1-76 Aggregate specifications

1995 Authority: IC 16-19-3-4

1996 Affected: IC 16-19-3-4
1997

1998 Sec. 76. (a) Aggregate to be used in soil absorption systems **shall must** be gravel, stone, or other materials listed by the
1999 department. Crushed limestone aggregate, if used, **shall must** be rated as forty percent (40%) or less on the Los Angeles abrasion
2000 quality requirement of the INDOT ~~2012~~ **2024** Standard Specifications, Section 904, Aggregates.

2001 (b) Aggregate **must be**:

2002 (1) ~~shall be~~ a mixture with no aggregate smaller in size than one-half (~~1/2~~) inch in diameter nor any aggregate larger
2003 than two and one-half (2 ~~1/2~~) inches in diameter; and

2004 (2) ~~must be~~ larger than the openings in the gravity distribution laterals.

2005 (c) Tire chips may be used in place of stone for soil absorption systems on a one-for-one basis, volumetrically. Tire chips
2006 used for soil absorption systems must have a nominal size of two (2) inches with chip dimensions being not less than one-half
2007 (~~1/2~~) inch and not greater than four (4) inches.

2008 (d) Fines, sand, and clay **shall must** be removed from the aggregate ~~prior to~~ **before** its placement in the trench.
2009

2010 *(Indiana Department of Health; 410 IAC 6-10.1-76; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2011 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
2012

2013 SECTION 74. 410 IAC 6-10.1-77 IS AMENDED TO READ AS FOLLOWS:

2014
2015 410 IAC 6-10.1-77 Barrier materials

2016 Authority: IC 16-19-3-4

2017 Affected: IC 16-19-3-4
2018

2019 Sec. 77. (a) The physical characteristics of barrier materials **shall must** have the following minimum average roll values
2020 ~~(MARV):~~

2021 (1) A grab tensile strength equal to or greater than eighty (80) pounds in machine direction (MD) and cross-machine
2022 direction (CD) in accordance with ASTM D 4632-~~08~~**15a(2023).**

2023 (2) A grab tensile elongation ~~@~~at break of equal to or greater than fifty percent (50%) in MD and CD in accordance with
2024 ASTM D 4632-~~08~~**15a(2023).**

2025 (3) A trapezoidal tear strength equal to or greater than thirty (30) pounds in MD and CD in accordance with ASTM D
2026 4533-~~11~~**15(2023).**

2027 (4) A CBR puncture resistance equal to or greater than one hundred seventy-five (175) pounds in accordance with ASTM
2028 D 6241-~~04 (Reapproved 2009)~~**22a.**

2029 (5) A permittivity of equal to or greater than 0.5 sec⁻¹ in accordance with ASTM D 4491-~~99a (Reapproved 2009)~~**22.**

2030 (6) A water flow rate equal to or greater than one hundred fifty (150) gallons per minute per square foot in accordance
2031 with ASTM ~~D 4355-07~~**D 4491-22.**

2032 (7) A UV resistance at five hundred (500) hours equal to or greater than seventy percent (70%) strength retained in
2033 accordance with ASTM D 4491-~~99a (Reapproved 2009)~~**D 4355-21.**

2034 (8) An apparent opening size (AOS) (U.S. Sieve) equal to or greater than forty (40) and equal to or less than seventy (70)
2035 sieve in accordance with ASTM D 4751-~~04~~**21a.**

2036 (b) The chemical characteristics of barrier materials **shall must** be:

- (1) nonbiodegradable;
- (2) resistant to acids and alkalies within a pH range of four (4) to ten (10); and
- (3) resistant to common solvents.

(Indiana Department of Health; [410 IAC 6-10.1-77](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 75. 410 IAC 6-10.1-78 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-78 Subsurface trench on-site sewage system site suitability

Authority: IC 16-19-3-4
 Affected: IC 16-19-3-4

Sec. 78. (a) On-site sewage system feasibility, location, and selection ~~shall~~ **must** be based on the:

- (1) site evaluation;
- (2) information obtained from the on-site soils evaluation; and
- (3) DDF.

If site conditions are acceptable, subsurface trench soil absorption systems are the systems of choice.

(b) ~~All of the~~ The following site conditions in this section must be met if subsurface trench on-site sewage systems are to be constructed:

(1) Sufficient area exists on the lot for an appropriately sized subsurface trench on-site sewage system, while meeting the:

- (A) separation distances of section 61 of this rule; and
- (B) dispersal area requirements of section 62 of this rule.

(2) The topographic position of the site on which the on-site sewage system is to be built is convex, hill slope, or flat. If surface and subsurface drainage can be diverted around the site, a toe slope position can be used.

(3) The site has a slope of fifteen percent (15%) or less.

(4) Site conditions permit distribution of effluent to each trench of the subsurface soil absorption system so that each trench can be loaded with a proportionate volume of effluent.

(5) Site conditions permit any seasonal high water table at the site of the proposed subsurface trench soil absorption system to be lowered to at least thirty-four (34) inches below original grade, in accordance with section 63 of this rule.

(6) When there are no **limiting layer** horizons from original grade to thirty-four (34) inches below original grade, ~~in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:~~

- ~~(A) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and~~
- ~~(B) the determination in clause (A) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department.~~

(7) ~~When there are no soil horizons at the site from the original grade to thirty four (34) inches below the original grade with:~~

- ~~(A) less than twenty percent (20%) clay by volume and greater than thirty-five percent (35%) coarse fragments by volume; or~~
- ~~(B) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume.~~

(8) (7) ~~All~~ **The** soil horizons at the site from the original grade to thirty-four (34) inches below the original grade have a soil loading rate of not less than twenty-five hundredths (0.25) and not more than one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table V, as follows:

Table V – Soil Loading Rates for Subsurface Trench On-Site Sewage Systems (in gpd/ft ²)								
SOIL STRUCTURE CLASSES								
SOIL TEXTURE CLASSES	Single Grain	Granular	Strong: Angular, Sub-Angular	Moderate: Angular, Sub-	Weak: Angular, Sub-Angular	Fragic Characteristic: Very Coarse	Structureless, Massive, Friable, V. Friable	Structureless, Massive, Compact,

			Blocky, Prismatic	Angular Blocky, Prismatic	Blocky, Prismatic; Platy ¹	Prismatic		Firm, V. Firm; Platy ²
Gravel, Coarse Sand	>1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Loamy Coarse Sand, Medium Sand	1.20	1.20	N/A	N/A	1.20	N/A	N/A	N/A
Fine Sand, Loamy Sand, Loamy Fine Sand	0.75	0.60	N/A	0.75	0.75	N/A	0.75	N/A
Very Fine Sand, Loamy V. Fine Sand	0.50	0.50	N/A	0.75	0.60	N/A	0.60	N/A
Sandy Loam, Coarse Sandy Loam	N/A	0.75	N/A	0.60	0.60	0.00	0.60	0.00
Fine Sandy Loam, V. Fine Sandy Loam	N/A	0.75	N/A	0.60	0.60	0.00	0.60	0.00
Loam	N/A	0.75	0.75	0.50	0.50	0.00	0.50	0.00
Silt Loam, Silt	N/A	0.75	0.75	0.50	0.30	0.00	0.30	0.00
Sandy Clay Loam	N/A	0.60	0.60	0.50	0.30	0.00	0.30	0.00
Silty Clay Loam, Clay Loam, Sandy Clay	N/A	0.60	0.60	0.30	0.25	0.00	0.25	0.00
Silty Clay, Clay	N/A	0.60	0.50	0.30	0.25	N/A	0.25	0.00
Organic Soil Materials	N/A	N/A	N/A	N/A	N/A	N/A	0.00	N/A
Limnic Soil Materials	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Bedrock	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A NOT APPLICABLE								
¹ Naturally occurring platy structure.								
² Platy structure caused by mechanical compaction has a soil loading rate of 0.00 gpd/ft ² unless broken up by methods approved by the department.								

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- (c) Subsurface trench soil absorption systems ~~shall~~ **must** not be constructed as follows:
- (1) In areas where surface runoff or subsurface drainage will have an adverse effect on the on-site sewage system, unless the surface runoff or subsurface drainage can be effectively diverted around the system.
 - (2) With the bottom of any of the trenches below the **BFE RFE**.
 - (3) In areas subject to ponding.
 - (4) Wholly or partly located in a drainage way.
 - (5) Where compacted soil material is identified in the soil at a depth greater than twelve (12) inches, unless the compaction is broken up by a method approved by the department.

(Indiana Department of Health; [410 IAC 6-10.1-78](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798R](#))

SECTION 76. 410 IAC 6-10.1-79 IS AMENDED TO READ AS FOLLOWS:

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410 IAC 6-10.1-79 Subsurface trench on-site sewage system type selection criteria

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 79. (a) On-site sewage system feasibility, location, and selection ~~shall~~ **must** be based on the:

- (1) site evaluation;
- (2) information obtained from the on-site soils evaluation; and
- (3) DDF.

(b) A subsurface trench gravity system may be constructed if the:

- (1) DDF of the project is equal to or greater than four hundred fifty (450) gallons per day;
- (2) soil loading rate of the site is equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot and equal to ~~or and~~ less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table V in section 78(b)(8)(7) of this rule;

(3) trench bottoms will be at least thirty (30) inches above any **limiting layer, and** ~~horizon with:~~

~~(A) a soil loading rate less than twenty five hundredths (0.25) gallons per day per square foot or greater than seventy five hundredths (0.75) gallons per day per square foot;~~

~~(B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:~~

~~(i) the on site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on site sewage system; and~~

~~(ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;~~

~~(C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments by volume; or~~

~~(D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume; and~~

(4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed with a total absorption trench length that does not exceed five hundred (500) **lineal-linear** feet.

(c) A subsurface trench gravity on-site sewage system may also be constructed if the:

- (1) DDF of the proposed on-site sewage system is less than four hundred fifty (450) gallons per day;
- (2) site has a soil loading rate of equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot and equal to ~~or and~~ less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table V in section 78(b)(8)(7) of this rule;

(3) trench bottoms will be at least twenty-four (24) inches above any **limiting layer; and** ~~horizon with:~~

~~(A) a soil loading rate less than twenty five hundredths (0.25) gallons per day per square foot or greater than seventy five hundredths (0.75) gallons per day per square foot;~~

~~(B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:~~

~~(i) the on site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on site sewage system; and~~

~~(ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;~~

~~(C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments by volume; or~~

~~(D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume; and~~

(4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed with a total absorption system trench length that does not exceed five hundred (500) **lineal-linear** feet.

(d) A subsurface trench on-site sewage system that ~~utilizes-uses~~ alternating fields or is dosed using pump assisted distribution may be constructed if the:

- (1) soil loading rate of the site is equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot and equal to ~~or and~~ less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table V in section 78(b)(8)(7) of this rule; and

- (2) trench bottoms will be at least twenty-four (24) inches above any **limiting layer**. ~~horizon with:~~
- ~~(A) a soil loading rate less than twenty five hundredths (0.25) gallons per day per square foot;~~
 - ~~(B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:~~
 - ~~(i) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and~~
 - ~~(ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;~~
 - ~~(C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments by volume; or~~
 - ~~(D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume.~~

(e) If ~~any a~~ soil absorption system, including either half of an alternating field on-site sewage system, is designed with a total absorption trench length greater than five hundred (500) **linear-linear** feet, the absorption system **shall must** be dosed using pump assisted distribution.

(f) If ~~any a~~ soil horizon within twenty-four (24) inches of the proposed trench bottom has a soil loading rate of one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table V in section 78(b)(8)(7) of this rule, the on-site sewage system **shall utilize must use** pressure distribution.

(Indiana Department of Health; 410 IAC 6-10.1-79; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 77. 410 IAC 6-10.1-80 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-80 Elevated sand mound on-site sewage system site suitability

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 80. (a) On-site sewage system feasibility, location, selection, and design **shall must** be based on the:

- (1) site evaluation;
- (2) information obtained from the on-site soils evaluation; and
- (3) DDF.

(b) Elevated sand mound on-site sewage systems may be constructed if the following site conditions are met:

- (1) Sufficient area exists on the lot for an appropriately sized elevated sand mound on-site sewage system, while meeting the:
 - (A) separation distances of section 61 of this rule; and
 - (B) dispersal area requirements of section 62 of this rule.

(2) The topographic position of the site on which the elevated sand mound on-site sewage system is to be built is convex, hill slope, or flat. If surface and subsurface drainage can be diverted around the site, a toe slope position can be **utilizedused**.

(3) The site on which the elevated sand mound on-site sewage system is to be built has a slope of six percent (6%) or less.

(4) Site conditions permit any seasonal high water table at the site of the proposed elevated sand mound on-site sewage system to be lowered to at least twenty (20) inches below original grade, in accordance with section 63 of this rule.

(5) When **there is no limiting layer** soil horizon from the ground surface to twenty (20) inches below the ground surface, ~~in a soil developed from Wisconsin glacial till shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:~~

- ~~(A) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and~~
- ~~(B) the determination in clause (A) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department.~~

(6) When there are no soil horizons from the ground surface to twenty (20) inches below the ground surface with:

- ~~(A) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments by volume; or~~

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(B) ~~greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume.~~

(7) (6) ~~All~~ The soil horizons from the original grade to twenty (20) inches below the original grade have a soil loading rate of not less than twenty-five hundredths (0.25) gallons per day per square foot and not more than one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table VI as follows:

Table VI - Soil Loading Rates for Elevated Sand Mound On-Site Sewage Systems (in gpd/ft ²)								
SOIL TEXTURE CLASSES	SOIL STRUCTURE CLASSES							
	Single Grain	Granular	Strong: Angular, Sub-Angular Blocky, Prismatic	Moderate: Angular, Sub-Angular Blocky, Prismatic	Weak: Angular, Sub-Angular Blocky; Prismatic; Platy ¹	Fragic Characteristics: Very Coarse Prismatic	Structureless, Massive, Friable, V. Friable	Structureless, Massive, Compact, Firm, V. Firm; Platy ²
Gravel, Coarse Sand	>1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Loamy Coarse Sand, Medium Sand	1.20	1.20	N/A	N/A	1.20	N/A	N/A	N/A
Fine Sand, Loamy Sand, Loamy Fine Sand	0.60	0.60	N/A	0.60	0.60	N/A	0.60	N/A
Very Fine Sand, Loamy V. Fine Sand	0.50	0.50	N/A	0.50	0.50	N/A	0.50	N/A
Sandy Loam, Coarse Sandy Loam	N/A	0.60	N/A	0.60	0.60	0.00	0.60	0.00
Fine Sandy Loam, V. Fine Sandy Loam	N/A	0.60	N/A	0.60	0.60	0.00	0.60	0.00
Loam	N/A	0.50	0.50	0.50	0.50	0.00	0.50	0.00
Silt Loam, Silt	N/A	0.50	0.50	0.50	0.50	0.00	0.50	0.00
Sandy Clay Loam	N/A	0.50	0.50	0.50	0.50	0.00	0.50	0.00
Silty Clay Loam, Clay Loam, Sandy Clay	N/A	0.25	0.25	0.25	0.25	0.00	0.25	0.00
Silty Clay, Clay	N/A	0.25	0.25	0.25	0.25	N/A	0.25	0.00
Organic Soil Materials	N/A	N/A	N/A	N/A	N/A	N/A	0.00	N/A
Limnic Soil Materials	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.00
Bedrock	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A NOT APPLICABLE								
¹ Naturally occurring platy structure								
² Platy structure caused by compaction has a soil loading rate of 0.00 gpd/ft ² unless broken up by methods approved by the department.								

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(c) Elevated sand mound soil absorption systems ~~shall~~ **must** not be constructed as follows:

(1) In areas where surface runoff or subsurface drainage will have an adverse effect on the on-site sewage system, unless

- the surface runoff or subsurface drainage can be effectively diverted around the system.
- (2) Where the original grade is below the ~~BFE RFE~~.
 - (3) In areas subject to ponding.
 - (4) Wholly or partly located in a drainage way.
 - (5) Where compacted soil material is identified in the soil at a depth greater than twelve (12) inches, unless the compaction is broken up by a method approved by the department.

(Indiana Department of Health; [410 IAC 6-10.1-80](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 78. 410 IAC 6-10.1-81 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-81 Table for on-site sewage system selection

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 81. On-site sewage system selection may be summarized in Table VII as follows:

Table VII - Table for On-Site Sewage System Selection Based on Requirements of 410 IAC 6-10.1						
Site Requirements	Subsurface Trench On-Site Sewage Systems				Elevated Sand Mound On-Site Sewage Systems (Sec. 80)	
	Gravity Flow ¹ (Sec. 78, 79)	Flood Dosing or Alt. Fields ¹ (Sec. 78, 79)	Flood Dosing ¹ (Sec. 78, 79)	Pressure Dist. (Sec. 78, 79)		
Slope	≤ 15%		≤ 15%	≤ 15%	≤ 15%	≤ 6%
Design Daily Flow	≥ 450	< 450	Any	Any	Any	Any
Acceptable Loading Rate Range for Determining System Size	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25	≥ 0.25
	≤ 0.75	≤ 0.75	≤ 0.75	≤ 0.75	≤ 1.20	≤ 1.20
Distance from Trench Bottom (Ground Surface for Mounds) to Layer with a Soil Loading Rate < 0.25 gpd/ft ²	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Layer with a Soil Loading Rate > 1.20 gpd/ft ²	≥ 2430	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Layer with a Soil Loading Rate = 1.20 gpd/ft ²	≥ 2430	≥ 24	≥ 24	≥ 24	Press. Dist. required for SLR = 1.20	≥ 0
Distance from Trench Bottom (Ground Surface for Mounds) to a Soil Horizon Developed from Wisconsin Glacial Till That Shows Effervescence ³	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20

Distance from Trench Bottom (Ground Surface for Mounds) to Soil Horizon with < 20% Clay and > 35% Coarse Fragments by Volume	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Soil Horizon with > 20% Clay and > 60% Coarse Fragments by Volume	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Seasonal High Water Table ²	≥ 24	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Total Linear Linear Feet of Trench	≤ 500	≤ 500	≤ 500 for Alt. Fields	Any	Any	N/A
¹ These conditions are also suitable for subsurface trench pressure distribution on-site sewage systems.						
² For subsurface trench systems, if the distance from trench bottom to seasonal high water table is less than twenty-four (24) inches, drainage must be installed in accordance with section 63 of this rule. For elevated sand mound systems, if the depth of the seasonal high water table is less than twenty (20) inches below the ground surface, drainage must be installed in accordance with section 5963 of this rule.						
³ See Sections 62(a)(2)(E), 78(b)(6), 79(b)(3)(B), 79(c)(3)(B), 79(d)(2)(B) and 80(b)(5).						
This chart does not include considerations such as the specific landscape features that must be met, the size of the soil absorption system, the size of the area necessary for construction of the soil absorption system on the contour with necessary setback and separation distances, dispersal area, the diversion of surface drainage, the feasibility of subsurface drainage, the ability to obtain easements, etc.						
This chart does not take into consideration the necessity to pump the effluent to overcome differences in elevation (when a subsurface trench gravity system might otherwise be constructed).						

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(Indiana Department of Health; [410 IAC 6-10.1-81](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); errata filed Dec 12, 2012, 2:16 p.m.: [20121226-IR-410120157ACA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 79. 410 IAC 6-10.1-82 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-82 Subsurface trench on-site sewage systems: general design and construction requirements

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 82. (a) The minimum absorption area (in square feet) required for each subsurface trench soil absorption system ~~shall~~ **must** be based on the following:

(1) The DDF.

(2) The appropriate soil loading rate (in gallons per day per square foot) determined from Table V in section 78(b)(~~8~~)(7) of this rule. The soil loading rate used for this computation ~~shall~~ **must** be the soil loading rate of the most restrictive horizon in the first twenty-four (24) inches below the trench bottom.

(3) The absorption area ~~shall~~ **must** be computed using the following formula:

$$\text{Area} = \frac{\text{DDF Design Daily Flow (in gpd)}}{\text{Soil loading rate in gpd/sq.-ft.}}$$

(b) The area of the on-site sewage system and dispersal area ~~shall~~ **must** be protected from disturbance before, during, and after construction of the system. The department or the local health department may require:

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- (1) a site visit and evaluation prior to issuing a construction permit; and
- (2) the system components to be marked and identified at the site prior to the site visit.

(b) (c) Subsurface trench soil absorption systems shall must be as long and narrow as the site permits while not exceeding maximum trench length.

(e) (d) All Subsurface trench on-site sewage systems shall must be located in accordance with the separation distances shown in Table II in section 61(a) of this rule.

(d) (e) Special caution shall must be taken to prevent wheeled and tracked vehicles from compacting the area selected for placement of the soil absorption system before, during, and after construction of the trenches, especially during wet weather. Alteration of soil structure by movement of vehicles may be grounds for rejection of the site or the soil absorption system, or both.

(e) (f) Subsurface soil absorption systems shall must not be constructed during periods of wet weather when the soil is sufficiently wet at the depth of installation to exceed its plastic limit, as follows:

(1) This applies to soils classified as the following:

- (A) Sandy loam.
- (B) Silt loam.
- (C) Loam.
- (D) Clay loam.
- (E) Silty clay loam.
- (F) Sandy clay.
- (G) Silty clay.
- (H) Clay.

(2) Sufficient samples shall must be evaluated throughout the soil absorption system site, from the soil surface to the proposed depth of the soil absorption system trench bottoms, to assure that the plastic limit of the soil is not exceeded.

(3) The plastic limit of a soil shall be is considered to have been exceeded when the soil can be rolled between the palms of the hands to produce threads one-eighth (1/8) inch in diameter without breaking apart and crumbling.

(f) (g) Vegetation at the soil absorption system site that would interfere with the soils evaluation, system layout, or system construction shall must be cut and removed prior to installation without causing compacted soil material.

(g) (h) If trees are present within the proposed soil absorption system:

- (1) soil absorption trenches may be routed around trees, provided the trenches follow the contour of the site; or
- (2) tree stumps and root balls may be removed, provided the resulting excavation will not exceed the permit requirements for width and depth of the soil absorption trench.

(h) (i) Excessive smearing of the usable absorption trench sidewalls or bottom during construction may:

- (1) result in irreversible damage to the soil infiltrative surface; and
- (2) be grounds for rejection of the site or the on-site sewage system, or both.

(i) (j) The A commercial building sewer shall must be a minimum of at least four (4) inches in diameter. Four (4) inch sewers shall must be installed with a positive slope of:

- (1) not less than four (4) inches in twenty-five (25) feet; and
- (2) not more than thirty-six (36) inches in twenty-five (25) feet.

(j) (k) A six (6) inch commercial building sewer, if utilized, shall must be installed with a positive slope of:

- (1) not less than two (2) inches in twenty-five (25) feet; and
- (2) not more than thirty-six (36) inches in twenty-five (25) feet.

(k) (l) A vertical drop may be installed in a commercial building sewer. Each vertical drop shall must have a cleanout located immediately upslope.

(l) (m) Effluent sewers shall must meet the following requirements:

- (1) Effluent sewers shall must be a minimum of four (4) inches in diameter.
- (2) Effluent sewer pipe shall must have a positive grade of at least two and four-tenths (2.4) inches per one hundred (100) feet or a grade of two-tenths percent (0.2%).

(m) (n) All Sewer and effluent sewer joints shall must be sealed according to the manufacturer's recommendations in order to be watertight and to withstand the pressures exerted on them.

(n) (o) The absorption trenches of a subsurface trench soil absorption system shall must be constructed along the contour.

(o) (p) The minimum depth from original grade to the bottom of a trench of a subsurface trench soil absorption system shall must not be less than ten (10) inches, and the maximum depth from final grade to the bottom of a trench of a subsurface trench soil absorption system shall must not be more than thirty-six (36) inches.

(p) (q) All Subsurface trench soil absorption systems shall must be designed to utilize-use trenches with a minimum width of eighteen (18) inches and a maximum trench width of thirty-six (36) inches.

2311 (q) (r) There shall must be a minimum separation of seven and one-half (7 1/2) feet, on center, between soil absorption
2312 system trenches, measured perpendicular to the trenches.

2313 (r) (s) No single absorption trench in a subsurface trench soil absorption system shall may exceed one hundred (100) feet
2314 in length, except for subsurface trench pressure distribution on-site sewage systems.

2315 (s) (t) Each trench and distribution lateral in a subsurface trench soil absorption system shall must be uniformly level
2316 throughout its length and width.

2317 (t) (u) The distal ends of distribution laterals and trenches shall must not be tied together.

2318 (u) (v) The distal end of each distribution lateral shall must be capped, with the cap joint sealed according to the
2319 manufacturer's recommendations in order to be watertight and to withstand the pressures exerted on it.

2320 (v) (w) Perforated pipe distribution laterals in the absorption trench of a subsurface trench soil absorption system shall
2321 must be completely surrounded by aggregate that meets the specifications in section 76 of this rule. There shall must be at least
2322 six (6) inches of aggregate below the pipe.

2323 (w) (x) The minimum depth of aggregate above the distribution laterals shall must be:

- 2324 (1) two (2) inches throughout the entire length and width of trenches having a depth of twelve (12) inches or greater; or
2325 (2) two (2) inches above the distribution lateral for the entire length of trenches having a depth of ten (10) inches to
2326 two (2) inches.

2327 (x) (y) The aggregate used in a subsurface trench soil absorption system shall must be covered with a geotextile fabric
2328 barrier in such a manner as to prevent way that prevents the aggregate from becoming clogged with the earth fill. The barrier
2329 material shall must:

- 2330 (1) meet the minimum requirements in section 77 of this rule;
2331 (2) be placed on the aggregate to prevent soil particle movement into the aggregate; and
2332 (3) cover the aggregate from side to side and from end to end.

2333 (y) (z) A minimum of At least twelve (12) inches of cover shall must be provided over the aggregate in the trenches, and
2334 any fill required to provide cover shall must be crowned over the entire soil absorption system to promote surface runoff.

2335 (z) (aa) Tire chips, if used for aggregate, will have protruding wires and shall must be removed from the ground surface
2336 during site cleanup.

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2338 (Indiana Department of Health; 410 IAC 6-10.1-82; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; errata filed Dec
2339 12, 2012, 2:16 p.m.: 20121226-IR-410120157ACA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;
2340 readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

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2342 SECTION 80. 410 IAC 6-10.1-87 IS AMENDED TO READ AS FOLLOWS:
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2344 410 IAC 6-10.1-87 Elevated sand mound on-site sewage systems: design of the aggregate bed

2345 Authority: IC 16-19-3-4

2346 Affected: IC 16-19-3-4

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2348 Sec. 87. (a) The size of the aggregate bed shall must be determined from the following:
2349 (1) The minimum area of the aggregate bed shall must be calculated as:

$$\text{minimum aggregate bed area (ft}^2\text{) (AB)} = \frac{\text{DDF Design Daily Flow (in gpd)}}{1.2 \text{ gpd/ft}^2}$$

2350 (2) The dimensions of the aggregate bed shall must be as long and narrow as the site allows, while not exceeding the
2351 maximum bed width calculated in subdivision (3)(A).

2352 (3) The maximum width of the aggregate bed shall must meet the following requirements:

2353 (A) The maximum aggregate bed width (ft.)(ABQ) =

$$0.83 \text{ ft}^2/\text{gpd} \times \sqrt{\frac{\text{DDF (gpd)} \times \text{SLR (gpd/ft}^2\text{)}}{n}}$$

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2356 where 0.83 is a conversion factor (ft²/gpd)
2357 SLR is soil loading rate, and

DDF (gpd)	n
≤ 1500	3

where: DDF is design daily flow, and
n is determined by the DDF in this chart

1501-3000	4
3001-4000	5

This number may be rounded down to the nearest whole number.

- (i) where: 0.83 is a conversion factor (ft²/gpd) and SLR is soil loading rate, and
- (ii) where: DDF is design daily flow, and n is determined by the DDF in this chart:

DDF (gpd)	n
≤ 1500	3
1501-3000	4
3001-4000	5

(iii) This number may be rounded down to the nearest whole number.

(B) For on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, the width of the aggregate bed shall must be at least four (4) feet and not greater than ten (10) feet. The aggregate bed width shall must not exceed the maximum bed width calculated in clause (A).

(C) For on-site sewage systems with a DDF of greater than seven hundred fifty (750) gallons per day, the following apply:

(i) If the soil loading rate is fifty-hundredths (0.50) gallons per day per square foot (gpd/ft²) or less, the width of the aggregate bed shall must be not greater than fifteen (15) feet, and shall must not exceed the maximum bed width calculated in clause (A).

(ii) If the soil loading rate is greater than fifty-hundredths (0.50) gallons per day per square foot (gpd/ft²), the width of the aggregate bed shall must be not greater than twenty (20) feet, and shall must not exceed the maximum bed width calculated in clause (A).

(4) The minimum length of the aggregate bed shall must be calculated as:

$$\text{Minimum length of the aggregate bed (AB}_L\text{)} = \frac{\text{Minimum aggregate bed area (AB)}}{\text{Maximum aggregate bed width (AB}_w\text{)}}$$

(5) The depth of the aggregate bed shall must be at least the sum of:

- (A) at least six (6) inches of aggregate below the pressure distribution lateral;
- (B) the outside diameter of the pressure distribution lateral; and
- (C) at least two (2) inches of aggregate above the pressure distribution lateral.

(b) The aggregate bed shall must be installed on the INDOT Specification 23 sand in the basal area, as listed in Table XVI in section 88(j) of this rule.

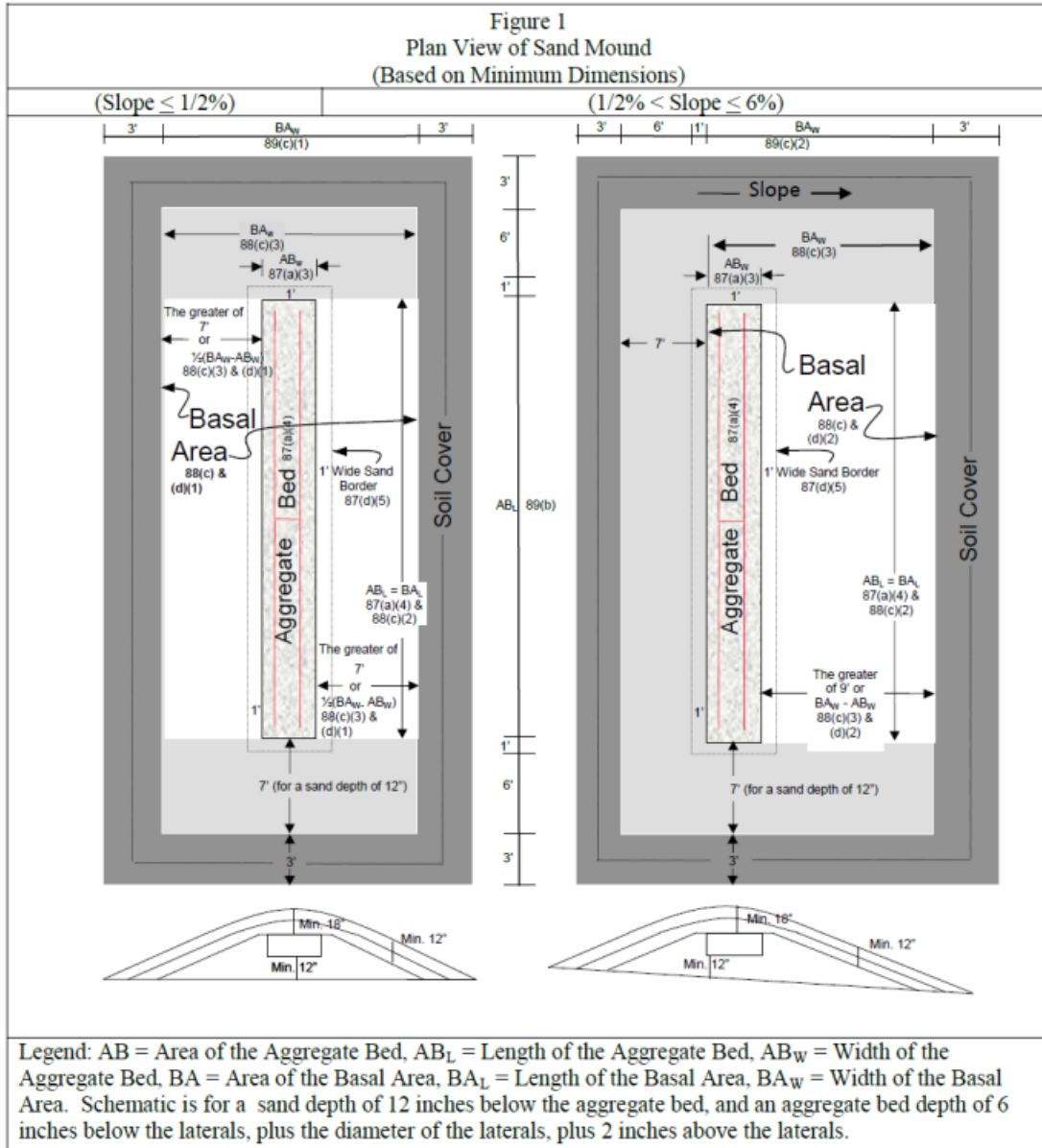
(c) The location of the aggregate bed shall must be:

- (1) for sites with slopes of one-half percent (1/2½%) or less, with its length positioned along the long axis in the center of the basal area; and
- (2) for sites with slopes greater than one-half percent (1/2½%) and less than or equal to six percent (6%), with its length positioned along the long axis at the upslope side of the basal area.

(d) The design of the aggregate bed shall must comply with the following:

- (1) The long axis of the aggregate bed shall must be constructed along the contours of the absorption system site.
- (2) The bottom of the aggregate bed shall must be level along its length and width.
- (3) Aggregate used in the aggregate bed shall must comply with the requirements of section 76 of this rule.
- (4) If more than one (1) aggregate bed is constructed, each of the aggregate beds shall must be equal in area.
- (5) A one (1) foot wide border of INDOT Specification 23 sand, level with the top of the aggregate bed, shall must surround the aggregate bed.

Figure 1, as follows, presents a visual depiction of the location of the aggregate bed within the basal area:



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2395 (Indiana Department of Health; [410 IAC 6-10.1-87](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); errata filed Apr

2396 23, 2013, 11:44 a.m.: [20130508-IR-410130165ACA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#);

2397 readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

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SECTION 81. 410 IAC 6-10.1-88 IS AMENDED TO READ AS FOLLOWS:

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410 IAC 6-10.1-88 Elevated sand mound on-site sewage systems: design of basal area

2402

Authority: IC 16-19-3-4

2403

Affected: IC 16-19-3-4

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Sec. 88. (a) The dimensions of the basal area ~~shall~~ **must** be as long and narrow as the site allows, in compliance with the requirements of subsection (c).

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(b) Numerical dimensions provided in this section for basal area and elevated sand mound size are rounded up to the nearest whole number.

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(c) The size of the basal area shall must be determined from the following:

(1) The minimum size of the basal area shall must be calculated as:

$$\frac{\text{Design Daily Flow (in gpd)}}{\text{soil loading rate (SLR)}}$$

$$\text{Minimum basal area (ft}^2\text{)(BA)} =$$

using the soil loading rates from Table VI in section 80(b)(7)(6) of this rule. The soil loading rate used for this computation shall must be the soil loading rate of the most restrictive horizon in the first twenty (20) inches below the ground surface.

(2) The minimum length for the basal area (BA_L) shall must equal the length of the aggregate bed (AB_L).

(3) The minimum width of the basal area (BA_w) shall must be calculated as the greater of:

(A) Minimum basal area width = $\frac{\text{minimum basal area (ft.}^2\text{) (BA)}}{\text{length of aggregate bed (ft) (AB}_L\text{)}}$; or

(B)	Slope	Minimum Basal Area Width (BA _w)
	0% ≤ slope ≤ 1/2%	Aggregate bed width + 14 ft.
	1/2% < slope ≤ 6%	Aggregate bed width + 9 ft.

(C) The dimensions determined from clause (A) or (B) for the INDOT Specification 23 sand shall must maintain a minimum sideslope grade of three-to-one (3:1).

(d) The location of the basal area within the elevated sand mound shall must be:

(1) on sites with slopes of one-half percent (1/2%) or less, the area under the aggregate bed and extending an equal distance from each side along the length of the aggregate bed; and

(2) on sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), the area under the aggregate bed and extending directly downslope from the aggregate bed.

(e) The design of the basal area shall must be for:

(1) sites with slopes of one-half percent (1/2%) or less; or

(2) sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%).

(f) The basal area shall must be constructed on the tilled surface of the soil absorption system site in accordance with the provisions of section 94 of this rule.

(g) The long axis of the basal area and elevated sand mound shall must be constructed along the contour of the soil absorption system site.

(h) The minimum depth of the INDOT Specification 23 sand under the aggregate bed shall must be twelve (12) inches.

(i) The INDOT Specification 23 sand shall must have a minimum final grade on all sides of three-to-one (3:1).

(j) The INDOT Specification 23 sand used in the elevated sand mound shall must meet the following standard:

Sieve Sizes	Percent (%) Passing Sieve (by Weight)
3/8 in (9.50 mm)	100
No. 4 (4.75 mm)	95 – 100
No. 8 (2.36 mm)	80 – 100
No. 16 (1.18 mm)	50 – 85
No. 30 (600 μm)	25 – 60
No. 50 (300 μm)	5 – 30
No. 100 (150 μm)	0 – 10
No. 200 (75 μm)	0 – 3

*The sand must not have more than forty-five percent (45%) retained between any two (2) consecutive sieves.

(k) Figure 1 in section 87(d) of this rule presents a visual depiction of the location of the basal area within the elevated sand mound.

(Indiana Department of Health; 410 IAC 6-10.1-88; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

2438 SECTION 82. 410 IAC 6-10.1-89 IS AMENDED TO READ AS FOLLOWS:

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2440 410 IAC 6-10.1-89 Elevated sand mound on-site sewage systems: dimensions of the elevated sand mound

2441 Authority: IC 16-19-3-4

2442 Affected: IC 16-19-3-4

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2444 Sec. 89. (a) Numerical dimensions for the soil material cover from the edge of the basal area to the edge of the elevated sand
2445 mound are based on a final grade of three-to-one (3:1) (on level sites). The plan views and numerical dimensions are for a simple
2446 slope (a slope that forms a plane). Elevated sand mounds sited on complex slopes are more difficult to design and construct on
2447 contour.

2448 (b) The minimum length of an elevated sand mound ~~shall~~ **must** be the sum of the following:

2449 (1) The length of the aggregate bed (AB_L).

2450 (2) Plus fourteen (14) feet, representing the two **(2)** sideslopes of INDOT Specification 23 sand at both ends of the
2451 aggregate bed (including the one (1) foot level borders). A minimum endslope grade of three-to-one (3:1) ~~shall~~ **must** be
2452 maintained on the INDOT Specification 23 sand.

2453 (3) Plus six (6) feet, representing the soil material cover at both ends of the aggregate bed. A minimum endslope grade
2454 of three-to-one (3:1) ~~shall~~ **must** be maintained on the soil cover material.

2455 (c) The minimum width of the elevated sand mound ~~shall~~ **must** be determined from the following:

2456 (1) On sites with slopes one-half percent (1/2%) or less, the minimum width of an elevated sand mound is the sum of the
2457 following:

2458 (A) The basal area width (BA_W) as determined in section 88(c)(3) of this rule.

2459 (B) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed.

2460 (2) On sites with slopes greater than one-half percent (~~1/2~~%) and less than or equal to six percent (6%), the minimum
2461 width of an elevated sand mound ~~shall~~ **must** be the sum of the following:

2462 (A) The ~~basal area width~~ (BA_W) as determined in section 88(c)(3) of this rule.

2463 (B) Plus seven (7) feet, representing the sideslope of INDOT Specification 23 sand on the upslope side of the
2464 aggregate bed (including the one (1) foot level border), and ~~shall~~ **must** maintain a minimum sideslope grade of
2465 three-to-one (3:1).

2466 (C) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed. A minimum
2467 sideslope grade of three-to-one (3:1) ~~shall~~ **must** be maintained on the soil cover material.

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2469 *(Indiana Department of Health; 410 IAC 6-10.1-89; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2470 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

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2472 SECTION 83. 410 IAC 6-10.1-98 IS AMENDED TO READ AS FOLLOWS:

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2474 410 IAC 6-10.1-98 Abandonment of an on-site sewage system

2475 Authority: IC 16-19-3-4

2476 Affected: IC 16-19-3-4

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2478 Sec. 98. **(a) The department or local health department shall issue a permit and require an inspection for the**
2479 **abandonment of an on-site sewage system in accordance with section 53(a)(9) of this rule.**

2480 ~~(a)~~ **(b)** When the use of an on-site sewage system is discontinued, the following procedure must be followed for all tanks
2481 and electrical service:

2482 (1) Electrical power must be disconnected at the source. All controls and panels must be removed.

2483 (2) ~~All~~ **A**bove ground electrical lines that will not be used for other purposes must be removed.

2484 (3) A licensed **septage management vehicle** ~~septic tank cleaner~~ ~~wastehauler~~ must pump ~~all the~~ contents from all tanks
2485 **and distribution boxes** in the on-site sewage system.

2486 (4) The tanks must ~~either be:~~

2487 (A) ~~removed or the~~ **have their** lids crushed into the tanks, and the holes or tanks must be backfilled with debris-
2488 free sand or other granular material, concrete, or soil material that is compacted to prevent settling. (If a sand
2489 mound is being abandoned, sand, aggregate and soil cover from the sand mound may be used for filling the tank
2490 or tanks); ~~or~~

2491 (B) **be** filled with flowable fill; **or**

(C) be removed and disposed of at a licensed landfill.

(5) Properly grade and establish vegetative cover.

~~(b) (c) If there are no plans to use the area for other purposes, the~~ The components of the soil absorption system may be left intact, ~~if there are no plans to use the area for other purposes.~~ Vegetative cover must be maintained.

~~(e) (d) If effluent has surfaced, those areas must be covered with hydrated lime followed by top soil and a vegetative cover.~~

~~(d) (e) If components of the soil absorption system are to be removed, the following procedure must be used:~~

~~(1) A licensed septic tank cleaner must pump all contents from all distribution boxes in the on-site sewage system.~~

~~(2) (1) Allow sufficient time after the on-site sewage system is taken out of service and the tanks pumped to make sure the entire soil absorption system is completely dry.~~

~~(3) (2) A contractor must remove the distribution network, aggregate and sand (if any) from the site~~ **all piping, chambers, and distribution boxes and dispose of these materials at a licensed landfill.**

~~(4) The contractor must dispose of the materials at a licensed landfill.~~

(3) Any aggregate, sand, and soil cover material may be used for fill material, including filling of abandoned tanks, after it has been allowed to sufficiently dry

~~(5) (4) The site must be properly graded and a vegetative cover established.~~

~~(e) (f) Written documentation of tank pumping and system abandonment must be provided to the department and the local health department by the owner in the form of a receipt from the contractor and landfill, if used.~~

(Indiana Department of Health; 410 IAC 6-10.1-98; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17, 2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

SECTION 84. 410 IAC 6-10.1-99 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-99 Matters incorporated by reference

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 99. (a) Bulletin SE 11, "The Sanitary Vault Privy", 19862021 Edition, is incorporated by reference as part of this rule. It is available at the ~~department~~ **Indiana Department of Health**, at 2 North Meridian Street, Indianapolis, ~~Indiana~~ **IN** 46204.

(b) NSF/ANSI Standard 40-20102023 and Standard 46-2010a2020 are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. Copies of the standards may be obtained by mailing a request to the National Sanitation Foundation, 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, ~~Michigan~~ **MI** 48113-0140, or at:

www.techstreet.com/cgi-bin/joint.cgi/nsf

(c) ASTM Standards ~~C 923-08, C 990-09, C 1644-06, D 1527-99 (Reapproved 2005), D 1785-06, D 2241-09, D 2282-99 (Reapproved 2005), D 2661-11, D 2665-12, D 2680-01 (Reapproved 2009), D 2729-11, D 2751-05, D 3034-08, D 4355-07, D 4491-99a (Reapproved 2009), D 4533-11, D 4632-08, D 4751-04, D 6241-04 (Reapproved 2009), F 405-05, F 480-12, F 667-12, F 810-07, and F 891-10~~ **C 923-20(2025), C 990-25 C 1116-23, C 1644-24, D 1785-21a, D 2241-25a, D 2661-24, D 2665-25, D2680-20(2025), D2729-21, D 3034-24e1, D 3035-22, D 4355-21, D 4491-22, D 4533-15(2023), D 4632-15a(2023), D 4751-21a, D 6241-22a, F 480-25, F 667-16(2021), F 810-12(2024), and F 2620-24** are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. ASTM standards may be obtained at:

<http://www.astm.org/Standard/index.shtml>

(d) AASHTO Standard ~~M252-09~~ **M252-23** is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at: **<https://store.transportation.org/Item/PublicationDetail?ID=5093>**.

<http://www.transportation.org>

(e) NRCS Standard 606, ~~September 2003~~ **July 2022** is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at:

<https://www.nrcs.usda.gov/resources/guides-and-instructions/subsurface-drain-ft-606-conservation-practice-standard>

~~<http://efotg.nrcs.usda.gov/references/public/AL/tg606.pdf>~~

(f) INDOT ~~2012~~ **2024** Standard Specifications, Section 904, Aggregates is incorporated by reference as part of this rule. Two (2)

2546 copies of the standard are available for reference in the files of the department. The standard may be obtained at:
2547 <http://www.in.gov/dot/div/contracts/standards/book/sep11/sep.htm>~~<https://www.in.gov/indot/files/2012Master.pdf>~~
2548 <https://www.in.gov/dot/div/contracts/standards/book/sep23/2024%20Standard%20Specifications.pdf>.

2549 (g) NEMA 250-2008**2020** is incorporated by reference as part of this rule. Two (2) copies of the standard are available for
2550 reference in the files of the department. The standard may be obtained at
2551 http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&clid=CKe9-66a368CFSWFQAodmii_A. <https://webstore.ansi.org/standards/nema/nema2502008>.
2552 https://www.nema.org/docs/default-source/standards-document-library/ansi_nema_250-2020-contents-and-scope76f809d7-afad-4aa1-80cd-e1d09b60f2e5.pdf?sfvrsn=cb4086bd_3.

2553
2554
2555 (h) IAPMO Z1000-2019, Prefabricated Septic Tanks, is incorporated by reference as part of this rule. Two (2)
2556 copies of the standard are available for reference in the files of the department. The standard may be obtained at:
2557 https://webstore.ansi.org/SDO/IAPMO?gclid=EAIaIQobChMI-8P-vZLJQIVn8mUCR2xTQxTEAAYASAAEgJ9K_D_BwE.

2558
2559 (i) Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Surveys, Second
2560 Edition, USDA, 1999 **is incorporated by reference**. Document may be obtained at:
2561 <https://nrspad.sc.egov.usda.gov/DistributionCenter/pdf.aspx?productID=703>.

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2563 *(Indiana Department of Health; 410 IAC 6-10.1-99; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2564 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*
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