

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:

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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)*

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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 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.

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

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

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

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

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272 SECTION 18. 410 IAC 6-10.1-18 IS AMENDED TO READ AS FOLLOWS:
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274 410 IAC 6-10.1-18 "Grease trap" or **"grease interceptor"** defined
275 Authority: IC 16-19-3-4
276 Affected: IC 16-19-3-4
277

278 Sec. 18. "Grease trap" or **"grease interceptor"** means a **plumbing device** or tank designed to intercept, congeal, and
279 retain or remove fats, oils, and grease (FOGs) from sewage.
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281 *(Indiana Department of Health; 410 IAC 6-10.1-18; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
282 *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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284 SECTION 19. 410 IAC 6-10.1-19 IS AMENDED TO READ AS FOLLOWS:
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286 410 IAC 6-10.1-19 "Health officer" defined
287 Authority: IC 16-19-3-4
288 Affected: IC 16-19-3-4
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290 Sec. 19. "Health officer" means the ~~health officer~~ **representative** of a local ~~board of health~~ **health department**.
291

292 *(Indiana Department of Health; 410 IAC 6-10.1-19; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
293 *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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295 SECTION 20. 410 IAC 6-10.1-20 IS AMENDED TO READ AS FOLLOWS:
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297 410 IAC 6-10.1-20 "High strength waste" defined
298 Authority: IC 16-19-3-4
299 Affected: IC 16-19-3-4
300

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

- 303 (1) Influent to a septic tank or other pretreatment component having any ~~or all~~ of the following:
304 (A) A five (5) day biochemical demand (BOD₅) greater than three hundred (300) mg/L.
305 (B) Total suspended solids (TSS) greater than two hundred (200) mg/L.
306 (C) Fats, oils, and grease (FOGs) greater than fifty (50) mg/L.
307 (2) Effluent from a septic tank or other pretreatment component discharged to a soil absorption field having any ~~or all~~ of
308 the following:
309 (A) A BOD₅ greater than one hundred seventy (170) mg/L.
310 (B) TSS greater than sixty (60) mg/L.
311 (C) FOGs greater than twenty-five (25) mg/L.
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313 *(Indiana Department of Health; 410 IAC 6-10.1-20; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
314 *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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316 SECTION 21. 410 IAC 6-10.1-20.1 IS ADDED TO READ AS FOLLOWS:
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318 **410 IAC 6-10.1-20.1 "IAPMO" defined**
319 Authority: IC 16-19-3-4
320 Affected: IC 16-19-3-4
321

322 Sec. 20.1. **"IAPMO" means the International Association of Plumbing and Mechanical Officials.**
323

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

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326 SECTION 22. 410 IAC 6-10.1-21.1 IS ADDED TO READ AS FOLLOWS:
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328 **410 IAC 6-10.1-21.1 “Inspector” defined**
329 **Authority: IC 16-19-3-4**
330 **Affected: IC 16-19-3-4**
331

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

335 *(Indiana Department of Health; 410 IAC 6-10.1-21.1)*
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337 SECTION 23. 410 IAC 6-10.1-21.2 IS ADDED TO READ AS FOLLOWS:
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339 **410 IAC 6-10.1-21.2 “Installer” defined**
340 **Authority: IC 16-19-3-4**
341 **Affected: IC 16-19-3-4**
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343 **Sec. 21.2. “Installer” means any individual who performs any work in furtherance of the:**
344 **(1) construction;**
345 **(2) installation;**
346 **(3) replacement;**
347 **(4) alteration;**
348 **(5) repair;**
349 **(6) expansion; or**
350 **(7) abandonment**
351 **of a commercial on-site sewage system that is subject to the provisions of this rule.**
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353 *(Department of Health; 410 IAC 6-10.1-21.2)*
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355 SECTION 24. 410 IAC 6-10.1-22 IS AMENDED TO READ AS FOLLOWS:
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357 **410 IAC 6-10.1-22 "Interceptor drain" defined**
358 **Authority: IC 16-19-3-4**
359 **Affected: IC 16-19-3-4**
360

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

365 *(Indiana Department of Health; 410 IAC 6-10.1-22; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
366 *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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368 SECTION 25. 410 IAC 6-10.1-22.1 IS ADDED TO READ AS FOLLOWS:
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370 **410 IAC 6-10.1-22.1 “Involuntary” defined**
371 **Authority: IC 16-19-3-4**
372 **Affected: IC 16-19-3-4**
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374 **Sec. 22.1. “Involuntary” means a need to modify or improve commercial facility due to factors outside of the**
375 **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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377 *(Indiana Department of Health; 410 IAC 6-10.1-22.1)*
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379 SECTION 26. 410 IAC 6-10.1-22.2 IS ADDED TO READ AS FOLLOWS:

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

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

388 **(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)**
389 **of this rule or Table VI in section 80(b)(6) of this rule; or**

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

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

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

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

398 **(1) a soil loading rate greater than seventy-five hundredths (0.75) gpd/ft², as assigned in Table V in section 80(b)(7)**
399 **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**
400 **sewage systems;**

401 **(2) a soil loading rate greater than one and twenty-hundredths (1.20) gpd/ft², as assigned in Table V in section**
402 **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;**

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

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

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

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

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

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(Indiana Department of Health; 410 IAC 6-10.1-27; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed
420 *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 28. 410 IAC 6-10.1-29 IS AMENDED TO READ AS FOLLOWS:

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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428 **Sec. 29. "Perimeter drain" means a subsurface drainage system that completely surrounds a soil absorption system for**
429 **the purpose of lowering a seasonal high water table ~~or~~ and preventing movement of subsurface water into a soil absorption system**
430 **site.**

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(Indiana Department of Health; 410 IAC 6-10.1-29; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed

433 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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435 SECTION 29. 410 IAC 6-10.1-30.1 IS ADDED TO READ AS FOLLOWS:

436
437 **410 IAC 6-10.1-30.1 “Project narrative”**

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

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

440

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

444

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

446

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

448

449 ~~410 IAC 6-10.1-32 "Regulatory flood elevation" or "RFE" defined~~

450 ~~Authority: IC 16-19-3-4~~

451 ~~Affected: IC 16-19-3-4~~

452

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

458

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

460

461 **410 IAC 6-8.3-32.1 “Recreational vehicle”**

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

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

464

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

467

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

469

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

471

472 **410 IAC 6-10.1-32.2 "Responsible charge of installers" defined**

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

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

475

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

480

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

482

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

484

485 **410 IAC 6-10.1-32.3 "Secondary safety device" defined**

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

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

488
489 **Sec. 32.3. "Secondary safety device" means a device installed below a riser cover of a tank that is commercially**
490 **manufactured for the purpose of preventing accidental entry into the tank.**

491
492 *(Indiana Department of Health; 410 IAC 6-10.1-32.3)*

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

494
495
496 410 IAC 6-10.1-36 "Segment drain" defined

497 Authority: IC 16-19-3-4

498 Affected: IC 16-19-3-4

499
500 Sec. 36. "Segment drain" means a subsurface drainage system constructed between two (2) soil absorption fields in the
501 same on-site sewage system for the purpose of **lowering a seasonal high water table and** intercepting and diverting subsurface
502 water away from the downslope soil absorption field.

503
504 *(Indiana Department of Health; 410 IAC 6-10.1-36; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
505 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

506
507 SECTION 35. 410 IAC 6-10.1-38.1 IS ADDED TO READ AS FOLLOWS:

508
509 **410 IAC 6-10.1-38.1 "Sewage Holding tank" defined**

510 Authority: IC 16-19-3-4

511 Affected: IC 16-19-3-4

512
513 **Sec. 38.1 "Sewage Holding tank" means a tank or series of tanks designed to hold sewage until it is pumped by a**
514 **licensed septage management vehicle, and the outlet of the tank or the last tank in series is sealed to prevent sewage from**
515 **discharging.**

516
517 *(Indiana Department of Health; 410 IAC 6-10.1-38.1)*

518
519 SECTION 36. 410 IAC 6-10.1-38.2 IS ADDED TO READ AS FOLLOWS:

520
521 **410 IAC 6-10.1-38.2 "Soil" defined**

522 Authority: IC 16-19-3-4

523 Affected: IC 16-19-3-4

524
525 **Sec. 38.2. "Soil" has the meaning set forth in IC 25-31.5-1-9.**

526
527 *(Indiana Department of Health; 410 IAC 6-10.1-38.2)*

528
529 SECTION 37. 410 IAC 6-10.1-40 IS AMENDED TO READ AS FOLLOWS:

530
531 410 IAC 6-10.1-40 "Soil absorption system" or "soil absorption field" defined

532 Authority: IC 16-19-3-4

533 Affected: IC 16-19-3-4

534
535 Sec. 40. "Soil absorption system" or "soil absorption field" means pipes or chambers laid in a system of subsurface
536 trenches or pipes laid in elevated beds into which the effluent from the septic tank is discharged into the soil for treatment and
537 dispersal. **The soil absorption system also includes the distribution box and the effluent sewers after the distribution box,**
538 **or the pressure manifold.**

539
540 *(Indiana Department of Health; 410 IAC 6-10.1-40; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*

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

542
543 SECTION 38. 410 IAC 6-10.1-40.1 IS ADDED TO READ AS FOLLOWS:

544
545 **410 IAC 6-10.1-40.1 “Soil boring”**
546 **Authority: IC 16-19-3-4**
547 **Affected: IC 16-19-3-4**

548
549 **Sec. 40.1. “Soil boring” means an excavation made by a soil auger, probe, or similar small diameter soil sampling**
550 **equipment used to pull soil samples out of the ground that are used to provide a description and characterization of the**
551 **soil.**

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

553
554
555 SECTION 39. 410 IAC 6-10.1-41 IS AMENDED TO READ AS FOLLOWS:

556
557 410 IAC 6-10.1-41 "Soil horizon" defined
558 Authority: IC 16-19-3-4
559 Affected: IC 16-19-3-4

560
561 Sec. 41. "Soil horizon" means a layer of soil or soil material approximately parallel to the land surface and differing from
562 adjacent genetically related layers in physical, chemical, and biological properties or characteristics such as:

- 563 (1) color;
564 (2) structure, **including grade, shape, and size**;
565 (3) texture;
566 (4) consistence;
567 **(5) percent coarse fragments**;
568 ~~(5)~~**(6)** kinds and numbers of organisms present; and
569 ~~(6)~~**(7)** ~~degree of~~ acidity or alkalinity.

570
571 *(Indiana Department of Health; ~~410 IAC 6-10.1-41~~; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
572 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

573
574 SECTION 40. 410 IAC 6-10.1-42 IS AMENDED TO READ AS FOLLOWS:

575
576 410 IAC 6-10.1-42 "Soil loading rate" defined
577 Authority: IC 16-19-3-4
578 Affected: IC 16-19-3-4

579
580 Sec. 42. "Soil loading rate" means the ~~allowable~~ rate of application of septic tank effluent, **expressed in U.S. gallons,**
581 **that may be applied daily per square foot of to the soil. It is expressed in gallons per day per square foot.**

582
583 *(Indiana Department of Health; ~~410 IAC 6-10.1-42~~; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
584 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

585
586 SECTION 41. 410 IAC 6-10.1-42.1 IS ADDED TO READ AS FOLLOWS:

587
588 **410 IAC 6-10.1-42.1 “Soil pit” defined**
589 **Authority: IC 16-19-3-4**
590 **Affected: IC 16-19-3-4**

591
592 **Sec. 42.1. “Soil pit” means an excavation that is wide, deep, and long enough for the soil scientist to enter safely,**
593 **according to the federal Occupational Safety and Health Administration and any other federal, state, or local**
594 **requirements, to directly observe, characterize, and describe the soil profile.**

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(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:

410 IAC 6-10.1-47.1 "Temporary Benchmark" defined

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

651
652 *(Indiana Department of Health; 410 IAC 6-10.1-47.1)*

653
654 SECTION 46. 410 IAC 6-10.1-47.2 IS ADDED TO READ AS FOLLOWS:

655
656 **410 IAC 6-10.1-47.2- “Upgraded Piping” defined**

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

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

659
660 **Sec. 47.2. “Upgraded Piping” means:**

661 **(1) Waterworks grade ductile iron pipe with tyton or mechanical joints; or**

662 **(2) PVC pressure sewer pipe with an SDR rating of twenty-six (26) or less with compression gasket joints; or**

663 **(3) Plastic pipe in compliance with Rule 327 IAC 8-3.2-8(a)(5).**

664
665 *(Indiana Department of Health; 410 IAC 6-10.1-47.2)*

666
667 SECTION 47. 410 IAC 6-10.1-47.3 IS ADDED TO READ AS FOLLOWS:

668
669 **410 IAC 6-10.1-47.3 “Voluntary” defined**

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

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

672
673 **Sec. 47.3. “Voluntary” means an owner’s intentional or deliberate action to modify or improve a commercial**
674 **facility.**

675
676 *(Indiana Department of Health; 410 IAC 6-10.1-47.3)*

677
678 SECTION 48. 410 IAC 6-10.1-47.4 IS ADDED TO READ AS FOLLOWS:

679
680 **410 IAC 6-10.1-47.4 “Watertight” defined**

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

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

683
684 **Sec. 47.4. “Watertight” means that water or effluent cannot leak into or out of the structure except through piping**
685 **in the designated pipe penetration ports or connectors. Pipe penetrations or connections shall result in a connection which**
686 **does not allow liquid to flow around the pipe penetration into the structure. Results of watertightness testing, as specified**
687 **in IAPMO/ANSI Z1000-2019 9.1 may be provided to confirm watertightness of new tanks. For existing tanks, the water**
688 **test procedure as outlined in IAPMO/ANSI Z1000-2019 9.1.3 may be used for watertightness testing.**

689
690 *(Indiana Department of Health; 410 IAC 6-10.1-47.4)*

691
692 SECTION 59. 410 IAC 6-10.1-48 IS AMENDED TO READ AS FOLLOWS:

693
694 **410 IAC 6-10.1-48 Administrative authority**

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

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

697
698 **Sec. 48. (a) The department, its agent, or the health officer or ~~his or her~~ the health officer’s agent shall be permitted to**
699 **enter upon all properties at the proper time for the following purposes necessary to achieve compliance with this rule:**

700 **(1) Inspection.**

701 **(2) Observation.**

702 **(3) Measurement.**

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- (4) Sampling.
- (5) Testing.

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

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

(Indiana Department of Health; 410 IAC 6-10.1-48; 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 50. 410 IAC 6-10.1-49 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-49 General sewage disposal requirements

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

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

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

~~(b)~~ (c) The:

- (1) design;
- (2) construction;
- (3) installation;
- (4) location;
- (5) maintenance; and
- (6) operation;

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

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

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

- ~~(1)~~ **(1) a** septic tank and a soil absorption system that ~~has not failed~~ **is not in failure; or**
- ~~(2)~~ **(2) A sewage holding tank in compliance with IC 16-41-25-9 and this rule; or**
- ~~(3)~~ **(3) A sanitary vault privy installed in compliance with Bulletin S.E. 11, 2021. A sanitary vault privy may be used as the sole method of sewage disposal only if the commercial facility does not have interior plumbing, including fixtures, water lines, waste collection piping, or drains. A sanitary vault privy may also be used in conjunction with another type of on-site sewage system;**
- ~~(4)~~ **(4) An NPDES permit issued in accordance with 327 IAC 2; or**
- ~~(5)~~ **(5) A land application permit in accordance with 327 IAC 6.1.**

~~(f)~~ (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~~

757 department. A temporary sewage holding tank shall not be used as a primary means of commercial sewage disposal except:
758 (1) where necessary to prevent continued discharge of sewage from a failed existing commercial on-site sewage system;
759 (2) when soil conditions exist that preclude the prompt construction of a soil absorption system on a site that has already
760 received a construction permit; or
761 (3) where the holding tank is operated by a conservancy district, sewer district, private utility, or municipality as a part
762 of its sewage disposal plan or for not more than two (2) years while connection to sanitary sewer is being secured. This
763 two (2) year time frame may be extended upon documentation of satisfactory operation of the holding tank.

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

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

- 770 (1) roof drains;
- 771 (2) foundation drains;
- 772 (3) swimming pool main drains;
- 773 (4) hot tub drains; or
- 774 (5) area drains.

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

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

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

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

- 785 (A) extensive experience or records of use have not been developed in Indiana;;
- 786 (B) However, the applicant must submits evidence of sufficient clarity and conclusiveness to convince the
787 department verify that the proposal has a reasonable and substantial probability of satisfactory operation without
788 causing a health hazard, nuisance, surface water pollution, or ground water pollution; and
- 789 (C) The department may also require the applicant to satisfactorily document how and by whom the TNI
790 experimental facilities and any other portions of the commercial on-site sewage system are to be replaced if
791 they are, which could be damaged due to a failure of the experimental TNI component or components
792 installed. installation, are to be replaced if it becomes necessary.

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

795 (1) The system is inspected as described in section 54.1 and found to consist minimally of an on-site sewage system
796 as described in this rule that is neither in failure and nor malfunctioning;

797 (2) Either:

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

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

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

805 (A) If the connection or reconnection is due to involuntary events, the department may utilize their best
806 judgment for the soil absorption field when approving a connection or reconnection to an existing system;
807 or

808 (B) If the connection or reconnection is due to voluntary events, the system being connected to must meet
809 the requirements of this rule.

810 (4) A construction permit for connection or reconnection to an existing on-site sewage system must be obtained

811 from the department prior to the start of construction of the commercial facility.

812
813 *(Indiana Department of Health; 410 IAC 6-10.1-49; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*
814 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*
815 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

816
817 SECTION 51. 410 IAC 6-10.1-49.1 IS ADDED TO READ AS FOLLOWS:

818
819 **410 IAC 6-10.1-49.1 Professional standards for on-site sewage system installers**

820 Authority: IC 16-19-3-4

821 Affected: IC 16-19-3-4

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

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

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

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

828 (A) passing an examination offered by the department or the local health department; or

829 (B) passing an examination offered by another entity approved by the department or the local health
830 department; or

831 (C) providing proof of registration in another Indiana county and a certificate issued by the Indiana
832 Onsite Wastewater Professional Association (IOWPA) in accordance with IC 16-41-25-12(b).

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

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

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

837
838 **(Indiana Department of Health; 410 IAC 6-10.1-49.1)**

839
840 SECTION 52. 410 IAC 6-10.1-50 IS AMENDED TO READ AS FOLLOWS:

841
842 **410 IAC 6-10.1-50 Construction permit requirements**

843 Authority: IC 16-19-3-4

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

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

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

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

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

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

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

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

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

859 (8) change in operations that would increase the design daily flow; or

860 (9) change of operations that would result in the increase of the BOD5, TSS, or FOGs of the sewage.

861 (b) Nothing in this rule shall be construed as preventing requirements in a local ordinance for the issuance of a commercial
862 on-site sewage system **construction permit**, provided that the permit required by local ordinance is:

863 (1) issued only after permit issuance by the department (except as permitted in section 48(b) **of this rule** or subsection

864 (c) of this rule); and

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(2) is not in conflict with the permit issued by the department.

(c) Construction permits shall not be required for the following:

~~(1) Repair or replacement of commercial on-site sewage system equipment with new units of similar design and capacity, none of which will cause a health hazard or adversely affect ground water, facility operation, hydraulics, physiochemical treatment, biological treatment, solids removal, or the ultimate means of liquid disposal. This section shall not be construed as allowing the construction of replacement soil absorption fields or portions thereof without a valid construction permit issued in accordance with this rule.~~

~~(2) Commercial on-site sewage systems for which a construction permit has been issued under 327 IAC 3, and which serve two (2) or more premises, and which are owned, operated, or maintained by an incorporated city or town, a conservancy district established under IC 14-33, or a regional sewer district established under IC 13-26. This section shall not be construed as an exemption from the requirement of subsection (a) for commercial on-site sewage systems located on the premises of and serving only schools or municipal facilities.~~

(d) The permittee shall notify the health officer or the health officer's designee when the work is ready for final inspection:

(1) using the procedure in a local ordinance; or

(2) at least forty-eight (48) hours or two (2) working days before any portions of the system are to be covered, if the local health department does not have alternative final inspection procedures in a local ordinance.

(Indiana Department of Health; 410 IAC 6-10.1-50; 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 53. 410 IAC 6-10.1-51 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-51 Application for construction permit

Authority: IC 16-19-3-4

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

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

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

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

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

(C) 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 (2), in writing.

(D) The inclusion of grinder and sewage ejector pumps, or other water using appliances that affect the waste strength characteristics or volume from the commercial facility in the commercial plumbing.

~~(3)~~ **(2)** One (1) set of detailed construction plans and specifications certified and sealed by a professional engineer or architect currently registered in Indiana, ~~or as provided in IC 25-21.5-5-1-7(b), registered land surveyors may only certify and seal plans for gravity sewers, storm sewers, and tile drains. said~~ Written plans of the site and commercial on-site sewage system ~~must be~~ drawn to scale and ~~having~~ have sufficient clarity to verify that the design of the commercial on-site sewage system complies with the provisions of this rule, including, but not limited to: ~~be reproduced to create legible microfilm. As provided in IC 25-21.5-1-7(b), registered land surveyors may only certify and seal plans for gravity sanitary sewers, storm sewers, and tile drains.~~

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

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

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

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

(E) Sufficient elevations to determine and confirm:

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- (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 plat 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)~~ (B) 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.

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

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(Indiana Department of Health; [410 IAC 6-10.1-51](#); 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 54. 410 IAC 6-10.1-53 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-53 Construction permit conditions

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

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

- (1) That the original permit expiration date shall be one (1) year after permit issuance.
- (2) That if the applicant has started installation of equipment, piping, or tankage that will comprise part of the commercial on-site sewage system, on or before the original date of permit expiration, the permit shall expire two (2) years after issuance.
- (3) That all necessary local permits and approvals be obtained before construction is begun.
- (4) That any proposed changes, alterations, or additions to the commercial on-site sewage system herein approved, be submitted to the department for review and approval ~~prior to~~ **before** the start of construction to effect the proposed changes, alterations, or additions.
- (5) That no change in occupancy or use of the facility served be effected if it would result in sewage flow on the peak day in excess of the capacity of the commercial on-site sewage system as stated in the construction permit, or if it would result in sewage being generated of a type incompatible with **soil absorption field disposal treatment and dispersal**. Any ~~such~~ change in occupancy or use may be made only after the department has issued a construction permit for modifications to the subject commercial on-site sewage system that will allow it to accommodate increased sewage flows.
- (6) That if pollution, health hazards, or nuisance conditions occur that are attributable to the commercial on-site sewage system permitted herein, immediate corrective action be taken by the owner.
- (7) That the permittee notify the department and the local health department at least seven (7) days before construction of the approved commercial on-site sewage system is to ~~commence~~ **begin**.

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

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

- (1) Best judgment of the department must be based on the following:**
 - (A) Limitations of the site.**
 - (B) Written results of an inspection of the existing on-site sewage system as described in section 54.1 of this rule which identifies the probable reasons for system failure.**
 - (C) Written results of an on-site soils evaluation.**
- (2) Soil absorption system replacements for a commercial on-site sewage system using best judgment may have trenches constructed to a maximum depth of forty-eight (48) inches below final grade, if necessary, and if the site and soil conditions allow.**
- (3) Soil absorption system replacement shall not be contrary to sections 49(a) and 68(h) of this rule.**
- (4) Deviations to this rule for soil absorption system replacement shall be identified and recorded on the construction permit issued for the replacement soil absorption system.**

(d) For a commercial on-site sewage system failure, the department may require an approved aeration unit, in compliance with section 68(h), for aerobic digestion after the septic tank and prior to the soil absorption field, if high strength waste is confirmed to be a contributing factor to the failure. The aeration unit manufacturer shall confirm that the specified unit will reduce the waste strength below that of high strength waste. No sizing reduction for the septic tank

1027 or soil absorption field shall be allowed for the use of an aeration unit in this manner. The aeration unit may not be required
1028 if the commercial facility owner agrees to an appropriate plan approved by the department to reduce the waste strength
1029 in another way.

1030 (e) The construction permit for a commercial on-site sewage system in violation of this section rule may be revoked
1031 by the department or the health officer in accordance with section 56 of this rule. Requirements of permits issued for the
1032 construction of commercial on-site sewage systems shall not be considered fulfilled until the installation is completed in
1033 compliance with this rule and with the approved construction plan and approved by the health officer or the health officer's
1034 duly authorized representative.

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1036 *(Indiana Department of Health; 410 IAC 6-10.1-53; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1037 *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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1039 SECTION 55. 410 IAC 6-10.1-54 IS AMENDED TO READ AS FOLLOWS:

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1041 410 IAC 6-10.1-54 Operating permits

1042 Authority: IC 16-19-3-4

1043 Affected: IC 16-19-3-4

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1045 Sec. 54. (a) The department or the local health department may require written operating permits as follows:

1046 (1) A written operating permit issued by the department shall must be signed by the commissioner or his or her duly
1047 authorized representative. **A written operating permit issued by the local health department must be signed by the**
1048 **health officer.**

1049 (2) An operating permit shall must be renewed as follows:

1050 (A) At least once every three (3) years for on-site sewage systems having **mechanical components in addition**
1051 **to a septic tank and a soil absorption field. Mechanical components include, but are not limited to, effluent**
1052 **pumps, floats, control panels, control sensors, blowers, and flush valves, other than a septic tank, requiring**
1053 **scheduled inspection and maintenance.**

1054 (B) At least once every five (5) years for all **gravity fed other** on-site sewage systems **that consist of only a**
1055 **septic tank and a soil absorption field with no mechanical components.**

1056 (C) **At least once every two (2) years for a sewage holding tank or sanitary vault privy.**

1057 (b) An operating permit shall must identify all components of an on-site sewage system requiring inspection and
1058 maintenance.

1059 (c) The records for an operating permit requiring scheduled inspection and maintenance shall must contain the following:

1060 (1) The name, address, and telephone number of the service company contracted to perform inspection and maintenance.

1061 (2) A description of the operation and maintenance document or documents used for scheduled inspection and
1062 maintenance.

1063 (d) ~~The~~ **An** owner shall provide the department or the local health department with the following:

1064 (1) Written documentation of all scheduled and unscheduled inspection and maintenance within one (1) month of the
1065 date performed.

1066 (2) A copy of the inspection and maintenance contract.

1067 (e) **Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an**
1068 **operating permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in**
1069 **conflict with an operating permit issued by the department.**

1070 ~~(e)~~ (f) The operating permit for a commercial on-site sewage system in violation of subsection (d) may be revoked by the
1071 department or the local health department, if the local health department issued the operating permit, in accordance with
1072 section 56 of this rule.

1073 (g) **The department or the local health department may require a system to be inspected, as described in section**
1074 **54.1 of this rule, detailing the functionality of the system components and maintenance concerns before operating permit**
1075 **renewal.**

1076 ~~(f) Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an operating~~
1077 ~~permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in conflict with an~~
1078 ~~operating permit issued by the department.~~

1079 (g) **If a service contract is discontinued for any reason, the owner or the service provider shall contact the**
1080 **department or local health department and a new service contract for operation and maintenance shall be provided to the**

1081 **department or local health department within one (1) month of lapse in contract.**

1082
1083 *(Indiana Department of Health; 410 IAC 6-10.1-54; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1084 *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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1086 SECTION 56. 410 IAC 6-10.1-54.1 IS ADDED TO READ AS FOLLOWS:

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1088 **401 IAC 6-10.1-54.1 Requirements for inspection of existing on-site sewage systems**

1089 **Authority: IC 16-19-3-4**

1090 **Affected: IC 16-19-3-4**

1091 **Sec. 54.1. (a) When an on-site sewage system is to be inspected for:**

1092 **(1) connection or reconnection to an existing on-site sewage system described in section 49(j) of this rule;**

1093 **(2) ~~for~~ use of best judgment as described in section 53(c) of this rule;**

1094 **(3) operating permit renewal as described in section 54(e) of this rule**

1095 **(4) application for change of use or change of operation applications as described in section 50(a); or**

1096 **(5) for other inspections that will be submitted to the department or local health department;**

1097 the requirements of this section shall apply.

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1099 **(b) Before an existing on-site sewage system is inspected, the inspector shall obtain a copy of the on-site sewage**
1100 **system construction permit and operating permit files, if available, including, but not limited to, the permit or permits,**
1101 **construction plan, final inspection documentation, and any complaint information related to the on-site sewage system**
1102 **being inspected from the department and local health department.**

1103 **(c) The system must minimally include a commercial on-site sewage system as defined in this rule as follows:**

1104 **(1) If the system being inspected does not contain, at a minimum, a commercial on-site sewage system as specified**
1105 **in section 49(e) of this rule, the inspector shall document that the system does not meet the minimum requirements**
1106 **of this rule.**

1107 **(2) The system being inspected must be evaluated with respect to the appropriate on-site sewage system rule or**
1108 **Sanitary Engineering Bulletin 13 that was in place at the time of the system permitting and installation.**

1109 **(3) If the system was installed prior to 1964 there is no rule or bulletin with which to comply, but the system shall**
1110 **minimally consist of a system as described in section 49(e).**

1111 **(d) Each component of the on-site sewage system shall be thoroughly inspected and documented, including but**
1112 **not limited to:**

1113 **(1) The septic tank, grease trap or grease interceptor, holding tank, or privy vault shall be pumped by a licensed**
1114 **septage management vehicle and inspected for:**

1115 **(A) working capacity;**

1116 **(B) watertightness and root intrusion;**

1117 **(C) concrete corrosion or tank deformation;**

1118 **(D) functional, intact inlet baffle;**

1119 **(E) functional, intact outlet baffle or outlet filter assembly;**

1120 **(F) functional and safe high water alarm and electrical box in a holding tank; and**

1121 **(G) riser to grade, securely fastened lid, and secondary safety device, if applicable.**

1122 **(2) The secondary treatment unit, if applicable, shall be pumped, if necessary, and thoroughly inspected and**
1123 **documented, including, but not limited to:**

1124 **(A) working capacity;**

1125 **(B) watertightness and root intrusion;**

1126 **(C) concrete corrosion or tank deformation;**

1127 **(D) functionality and setting of all components, control panels, and alarms;**

1128 **(E) riser to grade, securely fastened lid, and secondary safety device, if applicable.**

1129 **(3) The dosing tank, if present, should be pumped if needed, and shall be thoroughly inspected and documented,**
1130 **including but not limited to:**

1131 **(A) working capacity;**

1132 **(B) watertightness and root intrusion;**

1133 **(C) concrete corrosion or tank deformation;**

1134 **(D) riser to grade, securely fastened lid, and secondary safety device, if applicable; and**

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

1172
 1173 *(Indiana Department of Health; 410 IAC 6-10.1-54.1)*
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1175 SECTION 57. 410 IAC 6-10.1-56 IS AMENDED TO READ AS FOLLOWS:
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1177 410 IAC 6-10.1-56 Revocation or modification of a construction or operating permit

1178 Authority: IC 16-19-3-4

1179 Affected: IC 16-19-3-4
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1181 Sec. 56. A commercial on-site sewage system construction or operating permit may be revoked or modified by the
 1182 department **or the health officer** for any of the following causes:

- 1183 (1) Violation of any of the provisions of this rule.
 1184 (2) Violation of any limitation, term, or condition contained in the construction or operating permit.
 1185 (3) Failure to disclose all facts relevant to construction, operation, and use of the commercial on-site sewage system in a
 1186 manner that it can consistently treat and dispose of all sewage received for the life of the facilities it serves, without
 1187 causing a health hazard, nuisance, surface water pollution or ground water pollution.
 1188 (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 sSeptic 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 ¹⁰ | 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).

¹⁰ Sinkhole: a depression or hole in the ground caused by some form of collapse of the surface layer, as when subsurface limestone is dissolved or worn away by the movement of water underground.

1205 (b) A commercial on-site sewage system ~~shall~~ may not be located within two hundred (200) feet of a public water supply
1206 lake or reservoir. However, ~~any~~ a commercial on-site sewage system that includes secondary treatment and meets the following
1207 requirements may be less than two hundred (200) feet, but not less than fifty (50) feet, from the normal or ordinary high water
1208 mark of the lake or reservoir **if it:**

1209 (1) Meets the minimum requirements of section 68(h)(1) through 68(h)(3) of this rule; or

1210 (2) Is a system component independent of the soil absorption field that meets the effluent quality requirements of
1211 NSF/ANSI for certification under Standard 40 as a Class I plant, and that is approved by the department under the
1212 provisions of section 49(h)(i) of this rule.

1213 (c) ~~Any~~ A commercial on-site sewage system approved under the provisions of subsection (b) must be maintained for the
1214 life of the system through an operating permit issued under the provisions of section 54 of this rule.

1215 (d) Sewers ~~shall~~ may not be located within one hundred (100) feet of ~~any~~ a water supply well or subsurface pump suction
1216 line, except as follows:

1217 (1) Sewers constructed of ~~waterworks grade ductile iron pipe with tyton or mechanical joints, or PVC pressure sewer~~
1218 ~~pipe with an SDR rating of twenty six (26) or less with compression gasket joints,~~ **upgraded piping** may be located
1219 within the one hundred (100) foot distance.

1220 (2) In no case ~~shall~~ may sewers be located closer than thirty (30) feet to any water source.

1221 (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
1222 mobile home park with twenty-five (25) or more lots, ~~waterworks grade ductile iron pipe with mechanical joints, or SDR 26 PVC~~
1223 ~~pressure sewer pipe with compression fittings~~ **upgraded piping shall must** be used. ~~The piping shall not be constructed closer~~
1224 ~~than seventy (70) feet to water sources.~~

1225 (f) Water lines and sewers ~~shall~~ may not be laid in the same trench and ~~shall~~ must have the following requirements:

1226 (1) A horizontal separation of ten (10) feet shall be maintained between water lines and sewers.

1227 (2) Where crossings are necessary, a ~~minimum of~~ **at least** eighteen (18) inches vertical clearance must be maintained with
1228 the water line positioned above the sewer line when possible.

1229 (3) When it is impossible to maintain proper horizontal and vertical separation, the sewer ~~shall~~ must be constructed of
1230 **upgraded piping** ~~ductile iron pipe with mechanical joints or PVC pressure sewer pipe with an SDR rating of twenty six~~
1231 ~~(26) or less, having mechanical or compression gasket joints~~ within ten (10) feet of the water line with the water line
1232 positioned above the sewer line when possible. The sewer shall be pressure tested to assure watertightness ~~prior to~~ **before**
1233 back filling.

1234
1235 *(Indiana Department of Health; 410 IAC 6-10.1-61; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*
1236 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; errata filed Oct 6, 2014, 3:08 p.m.: 20141029-IR-410140404ACA; readopted*
1237 *filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-*
1238 *410230798RFA)*

1239 SECTION 59. 410 IAC 6-10.1-62 IS AMENDED TO READ AS FOLLOWS:

1240 410 IAC 6-10.1-62 Dispersal area

1241 Authority: IC 16-19-3-4

1242 Affected: IC 16-19-3-4

1243 Sec. 62. (a) A dispersal area is required for a soil absorption system when:

1244 (1) the soil loading rate used to determine the size of the soil absorption system is five-tenths (0.5) gallons per day per
1245 square foot (gpd/ft²) or less; or

1246 (2) there is a horizon in the upper sixty (60) inches of the profile description with: **a restrictive limiting layer.**

1247 (A) ~~bedrock;~~

1248 (B) ~~densic material;~~

1249 (C) ~~dense till;~~

~~(D) soil with fragile soil properties; or
(E) layers transitional to dense till (horizons 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.~~

(b) When the conditions in subsection (a) apply, the following requirements **shall must** be met:

(1) For soil absorption system sites with a slope of one-half percent (~~1/2~~%) or less, a minimum dispersal area as described in Table III in subsection (c) **shall must** be maintained on each side of the outside edge of the:

- (A) outer trench parallel to the length of the trench; or
- (B) INDOT Specification 23 sand and parallel to the long axis of the elevated sand mound.

(2) For soil absorption system sites with a slope of greater than one-half percent (~~1/2~~%), a minimum dispersal area as described in Table III in subsection (c) **shall must** be maintained on the downslope side of the soil absorption system from the outside edge of the:

- (A) downslope trench parallel to the length of the trench; or
- (B) INDOT Specification 23 sand downslope and parallel to the long axis of the elevated sand mound.

(c) For sites that do not meet the conditions of subsection (a), the minimum dispersal area **shall must** be ten (10) feet.

For sites that meet the conditions of subsection (a), the dispersal area **shall must** be as indicated in Table III, as follows:

| Table III – Minimum Dispersal Areas for Soil Absorption Systems ¹ | |
|---|---|
| Slope ≤ 1/2 1/2% ² : On-site sewage system without perimeter drain | One-fourth (1/4 1/4) width of soil absorption system ⁵ |
| Slope > 1/2 1/2% ³ : On-site sewage system without perimeter drain | One-half (1/2 1/2) width of soil absorption system ⁵ |
| Any slope: On-site sewage system with perimeter drain ⁴ | Ten (10) feet or the distance to the perimeter drain |
| ¹ No buildings, foundations, slabs, garages, patios, barns, aboveground and belowground swimming pools, retaining walls, roads, driveways, parking areas, or paved sidewalks are allowed in the dispersal area. | |
| ² Dispersal area is located on each side of the outside edge of the outer trench parallel to the length of the trench, or on each side of the outside edge of the sand area and parallel to the long axis of an elevated sand mound. | |
| ³ Dispersal area is located on the downslope side of the soil absorption system. | |
| ⁴ For on-site sewage systems with a subsurface perimeter drain without a seasonal high water table, the design and construction of the drain shall meet the requirements of section 63 of this rule. | |
| ⁵ Dispersal area width shall must not be less than ten (10) feet. A dispersal area width of more than twenty-five (25) feet is not required. | |

~~(d) Any~~ A disturbance within a dispersal area **shall must** not create compacted soil material.

(e) The location of the dispersal area **shall must** meet the following requirements:

(1) A dispersal area **shall must** be located on the property, or adjoining property with easement.

(2) Nothing that would impede the flow of water ~~shall be~~ is allowed in a dispersal area. This includes, but is not limited to, the following:

- (A) ~~b~~Buildings.
- (B) ~~f~~Foundations.
- (C) ~~s~~Slabs.
- (D) ~~g~~Garages.
- (E) ~~p~~Patios.
- (F) ~~b~~Barns.
- (G) ~~a~~Aboveground and belowground swimming pools.
- (H) ~~r~~Retaining walls.
- (I) ~~r~~Roads.
- (J) ~~d~~Driveways.
- (K) ~~p~~Parking areas.
- (L) ~~p~~Paved sidewalks.
- (M) ~~e~~Closed loop geothermal systems.~~;~~~~or~~
- (N) ~~e~~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~~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 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.

(3) ~~Spacing of subsurface perimeter drains and segment drains~~ **installed parallel to subsurface soil absorption trench lengths, or parallel to the long axis of an elevated sand mound,** along the contour of the site must be **spaced as**

1347 **follows:** for a subsurface trench system or parallel to the long axis of an elevated sand mound

1348 (A) **Perimeter and segment drains** must be spaced no more than ~~less than or equal to~~ sixty-five (65) feet
1349 **apart;**

1350 (B) **Interceptor drains must be spaced no more than:**

1351 (i) **fifty-five (55) feet from the downslope edge of the most downslope subsurface soil absorption**
1352 **trench or the downslope edge of INDOT Spec 23 sand in an elevated sand mound; or**

1353 (ii) **sixty-five (65) from a downslope segment drain; and**

1354 (C) **A segment drain may be used in conjunction with a perimeter drain or an interceptor drain to meet drain**
1355 **spacing requirements;**

1356 unless a greater spacing is determined through calculations.

1357 (4) The subsurface drain ~~shall~~ **must** not cross any portion of the soil absorption system.

1358 (g) ~~The~~ A subsurface drain pipe ~~shall~~ **must** be:

1359 (1) at least four (4) inches in diameter;

1360 (2) slotted; and

1361 (3) wrapped with a geotextile fabric with an effective opening size not smaller than two-tenths (0.2) millimeter and not
1362 larger than eighty-five hundredths (0.85) millimeter when installed in:

1363 (A) sands;

1364 (B) loamy sands;

1365 (C) sandy loams;

1366 (D) fine sandy loams;

1367 (E) loams;

1368 (F) silt loams; or

1369 (G) silts.

1370 (h) The subsurface drain trench ~~shall~~ **must**:

1371 (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
1372 used;

1373 (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;
1374 and

1375 (3) be constructed with no sags **or high points** in the line.

1376 (i) A subsurface drain trench installed upslope from a commercial on-site sewage system ~~shall~~ **must** be:

1377 (1) backfilled to final grade with aggregate that meets the minimum requirements of subsection (k); or

1378 (2) filled to within six (6) inches of final grade with aggregate that meets **the requirements in** subsection (k) and the
1379 final six (6) inches to final grade with cover soil material.

1380 (j) A subsurface drain trench installed on sides or downslope, and segment drain trenches may 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 minimum requirements of subsection (k)
1383 and the final six (6) inches to final grade with cover soil material.

1384 (k) The aggregate backfill for subsurface drain trenches ~~shall~~ **must** meet the minimum requirements of:

1385 (1) section 76 of this rule;

1386 (2) washed aggregate with a gradation in the range of INDOT Specification 8 through 11; or

1387 (3) INDOT Specification 23 sand or equivalent.

1388 (l) When INDOT Specification 23 sand is used for backfill, the drainpipe ~~shall~~ **must** be wrapped with a geotextile fabric.

1389 (m) The aggregate used as backfill in the perimeter, interceptor, or segment drain trenches described in subsections (i)(2)
1390 and (j)(2) ~~shall~~ **must** be covered with a geotextile fabric barrier that meets the minimum requirements in section 77 of this rule,
1391 **in a way that prevents such a manner as to prevent** the aggregate from becoming clogged with the earth fill.

1392 (n) The subsurface drain trench and the associated discharge piping ~~shall~~ **must** be constructed to permit water to flow by
1393 gravity throughout its length. No pumps or siphons shall be ~~utilized~~ **used** to effect the movement of the collected water.

1394 (o) Tile outlets ~~shall~~ **must** be provided with rodent guards.

1395
1396 *(Indiana Department of Health; 410 IAC 6-10.1-63; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1397 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1398
1399 SECTION 61. 410 IAC 6-10.1-64 IS AMENDED TO READ AS FOLLOWS:
1400

1401 410 IAC 6-10.1-61 On-site **soil** evaluation

1402 Authority: IC 16-19-3-4

1403 Affected: IC 16-19-3-4

1404
1405 Sec. 64. (a) Before issuance of ~~any~~ a permit for construction of a commercial on-site sewage system or the replacement
1406 or alteration of a soil absorption system, an on-site evaluation, which ~~shall~~ includes a description of the soil profile, ~~shall~~ **must** be
1407 conducted.

1408 (b) Properties of the soil at each site ~~shall~~ **must** be described by a **registered professional** soil scientist using the
1409 guidelines set forth in the soil manuals, technical bulletins, and handbooks of the NRCS.

1410 (c) **At least three (3) soil profile descriptions shall be completed in the area of the soil absorption field and shall**
1411 **provide good coverage of the entire soil absorption field area. For large commercial systems, additional soil profile**
1412 **descriptions may be necessary.**

1413 ~~(c)~~ (d) Soil profile information ~~shall~~ **must** be recorded:

1414 (1) to a depth of five (5) feet; or

1415 (2) until a **limiting** layer is encountered ~~that cannot be readily penetrated;~~
1416 whichever is shallower.

1417 ~~(d)~~ (e) The on-site evaluation ~~shall~~ **must** be conducted before application and plan submittal.

1418 ~~(e)~~ (f) The information in the written on-site soils evaluation report ~~shall~~ **must** include the following:

1419 (1) For topographic information, the following:

1420 (A) The slope and slope aspect.

1421 (B) Surface drainage characteristics and patterns including swales, ditches, and streams.

1422 (C) The proposed or existing location of house and well or other water supply.

1423 (D) The location of other major features or structures.

1424 (E) The location of soil evaluation sites **related to two (2) fixed reference points, when possible, but at least**
1425 **one fixed reference point must be identified on all sites**, and appropriate soil type boundaries.

1426 (F) The topographic position of the site.

1427 (2) For soil characteristics, the following:

1428 (A) Parent material.

1429 (B) The approximate depths of soil horizons.

1430 (C) The soil color, structure, and texture at each horizon.

1431 (D) The horizon designation for each horizon.

1432 (E) The depth to any layer that has a soil loading rate greater than seventy-five hundredths (0.75) gallons per
1433 day per square foot or less than twenty-five hundredths (0.25) gallons per day per square foot.

1434 (F) The depth to seasonal high ground water ~~as~~ indicated by soil wetness characteristics.

1435 (G) The depth to bedrock.

1436 (H) The soil consistence at each horizon.

1437 (I) The soil effervescence at each horizon.

1438 (J) The percent coarse fragments at each horizon.

1439 (K) The percent clay at each horizon, by field estimation, for any horizon where the percent coarse fragments is
1440 greater than thirty-five percent (35%) by volume.

1441 (L) The presence or absence of roots.

1442 (M) Frost penetration depth, if applicable.

1443 ~~(f)~~ (g) When soil characteristics are to be used for calculations for the depth of a subsurface drainage system, the following
1444 information ~~shall~~ **must** be recorded to a depth of eighty (80) inches:

1445 (1) The information required in subsection ~~(e)~~(f)(2).

1446 (2) Particle size family.

1447 (h) **On-site soil evaluation reports created from the evaluation of the soil profiles to be used for obtaining an on-**
1448 **site sewage system construction permit must be signed by the registered professional soil scientist and submitted directly**
1449 **to the department by the soil scientist.**

1450
1451 *(Indiana Department of Health; 410 IAC 6-10.1-64; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
1452 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

1453 SECTION 62. 410 IAC 6-10.1-65 IS AMENDED TO READ AS FOLLOWS:
1454

1455 410 IAC 6-10.1-65 Construction of sewers
 1456 Authority: IC 16-19-3-4
 1457 Affected: IC 16-19-3-4
 1458
 1459

1460 Sec. 65. (a) Sewers beginning three (3) feet outside the foundation walls of buildings ~~shall~~ **must** be constructed of piping
 1461 that meets the minimum requirements of section 75(a)(1) or 75(a)(2) of this rule.

1462 (b) Sewers serving individual units may connect to the main sewer by wye fittings. Sewers serving more than one (1)
 1463 unit must connect to the main sewer at a manhole.

1464 (c) Sewers ~~shall~~ **must** be laid to a uniform grade and at a slope equal to or greater than the minimum slopes shown in
 1465 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 | 0.6 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.

1466 (d) No outside building sewer ~~shall~~ **may** be less than four (4) inches in diameter. Minimum sewer diameters will vary
 1467 upward from four (4) inches according to use. Because of slope, cleaning, and maintenance problems, installation of four (4) inch
 1468 sewers is unacceptable except where they can adequately serve a building or facility having very low anticipated sewage flows.
 1469 Sewers shall be adequately sized to carry average and intermittent peak flows. Soil, waste, vent, and drain piping inside the
 1470 building ~~shall~~ **must** comply with the Indiana Plumbing Code (675 IAC 16).
 1471

1472 (e) Adequate sewer bedding ~~shall~~ **must** be provided. ~~All Building~~ sewers ~~shall~~ **must** be buried with at least two (2) feet
 1473 of cover to protect them from freezing. Force mains must be ~~buried deep enough~~ **installed below the frost line as listed in section**
 1474 **94(d), Table IX** to prevent freezing unless the lift station and force main can be designed such that the force main will drain
 1475 completely.

1476 (f) Sewers proposed under driveways, parking slabs, or other heavily loaded areas, ~~shall~~ **must** be adequately constructed
 1477 to prevent damage or breaking.

1478 (g) Manholes must be installed at the end of each line, at all changes in grade, size, or alignment, at all intersections, and
 1479 at intervals not greater than four hundred (400) feet for sewers fifteen (15) inches diameter or less. Intervals ~~not greater~~ **less** than
 1480 five hundred (500) feet are allowed for sewers eighteen (18) inches or greater in diameter.

1481 (h) A drop manhole should be installed where a sewer enters the manhole twenty-four (24) inches or more above the
 1482 manhole invert. The outside drop connection constructed with a drop manhole should be encased in concrete.

1483 (i) The minimum acceptable diameter for manholes is forty-eight (48) inches. The access opening into the manhole must
 1484 be at least twenty-two (22) inches in diameter.

1485 (j) Cleanouts may be substituted for manholes on short sewer runs. Cleanouts must:

- 1486 (1) be the same diameter as the sewer they are to serve; and
- 1487 (2) extend to grade.

1488 A cleanout may be installed at the terminus of a sewer provided that a manhole is within three hundred (300) feet of the terminus.

1489
 1490 *(Indiana Department of Health; 410 IAC 6-10.1-65; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
 1491 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1492 SECTION 63. 410 IAC 6-10.1-67 IS AMENDED TO READ AS FOLLOWS:
 1493
 1494

1495 410 IAC 6-10.1-67 Sewage lift stations and force mains

1496 Authority: IC 16-19-3-4

1497 Affected: IC 16-19-3-4

1498

1499 Sec. 67. (a) Sewage lift stations **must**:

1500 (1) ~~must~~ be protected from damage by a one hundred (100) year flood event; and

1501 (2) ~~shall~~ remain fully operational and accessible by maintenance vehicles during a twenty-five (25) year flood event and
1502 all weather conditions.

1503 (b) Submersible pumps and motors must be designed specifically for raw sewage use. Pumps must be readily removable
1504 for maintenance, repair, or replacement by installation with guide rail systems, breakaway flanges, and lifting chains.

1505 (c) Except where grinder or cutter pumps are used, raw sewage pumps ~~shall~~ **must** be capable of passing spheres ~~of at~~
1506 least three (3) inches in diameter. Effluent pumps may be used in lift stations following septic tanks.

1507 (d) At least two (2) pumps shall be provided in each lift station. Pumps shall be of the same capacity. Each ~~shall~~ **must** be
1508 capable of handling at least the expected maximum flow to the lift station.

1509 (e) Controls other than float switches ~~shall~~ **must**:

1510 (1) be installed outside the lift station;

1511 (2) comply with the Indiana Electrical Code (675 IAC 17); and

1512 (3) include automatic pump alternators.

1513 Encapsulated mercury float type switches are preferred over other types. Motor controls ~~shall~~ **must** be protected by a conduit seal
1514 or other appropriate measures to exclude moisture from the wet well. Power cords ~~shall~~ **must** meet the requirements of the Mine
1515 Safety and Health Administration for trailing cables. Ground fault interruption protection ~~shall~~ **must** be used to de-energize the
1516 circuit in event of any failure of the cable.

1517 (f) An audio-visual alarm system ~~shall~~ **must** be provided to indicate power failure, pump failure, excessive water level
1518 or any cause of pump station malfunction. The alarm ~~shall~~ **must** be:

1519 (1) located in an area where it can be observed twenty-four (24) hours a day; and

1520 (2) powered by a circuit separate from the pump circuit.

1521 (g) Overflows from lift stations are not permitted.

1522 (h) Pump discharge lines ~~shall~~ **must** include suitable shutoff and check valves. Check valves ~~shall~~ **must** be located
1523 between the pump and the shutoff valve ~~and only in the horizontal portion of the line~~. Check valves should be omitted in discharge
1524 lines connected individually to pumps where the lines must drain back into the pump station wet well between ~~pumpings~~ **doses**.

1525 (i) Force mains should be sized to provide a scouring velocity of at least two (2) feet per second at the design capacity of
1526 the pump.

1527 (j) Automatic air relief valves ~~shall~~ **must** be installed at high points in the force main to prevent air locking.

1528 (k) Separation distances between sanitary force mains and water lines ~~shall~~ **must** be **as specified in section 61 of this**
1529 **rule**, ~~the same as required for gravity sewers. A ten (10) foot horizontal separation is required between parallel water lines and~~
1530 ~~force mains, and an eighteen (18) inch vertical separation is required where force mains cross water lines.~~

1531 ~~(l) Force mains crossing other properties will have to be kept accessible through construction and maintenance easements.~~

1532

1533 *(Indiana Department of Health; 410 IAC 6-10.1-67; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1534 *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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1536 SECTION 64. 410 IAC 6-10.1-68 IS AMENDED TO READ AS FOLLOWS:

1537

1538 410 IAC 6-10.1-68 Septic tanks: general requirements

1539 Authority: IC 16-19-3-4

1540 Affected: IC 16-19-3-4

1541

1542 Sec. 68. (a) Septic tanks ~~shall~~ **must** be:

1543 (1) watertight and constructed of ~~durable material such as~~ **pre-cast concrete, fiber-reinforced polyester, or**
1544 **thermoplastic material as described in IAPMO Z1000 2019 section 5, 6, or 7** ~~fiberglass, polyethylene, or~~
1545 ~~polypropylene~~; and

1546 (2) protected from corrosion.

1547 (b) Cast in place, concrete block, wood, or metal septic tanks are prohibited.

1548 (c) Every septic tank ~~shall~~ **must** have a minimum capacity below the water line to provide at least forty-eight (48) hours

- 1549 detention time.
- 1550 (d) ~~All~~ Septic tank effluent including effluent from tanks fitted with aeration units for aerobic digestion ~~shall~~ **must**
- 1551 discharge into a soil absorption system or other treatment system as approved in accordance with section 49~~(h)~~**(i)** of this rule.
- 1552 (e) Two-compartment tanks ~~shall~~ **must** meet the following requirements:
- 1553 (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
- 1554 tank volume.
- 1555 (2) The divider wall ~~shall~~ **must** be:
- 1556 (A) monolithically cast in the tank; or
- 1557 (B) permanently secured within the tank body using noncorrosive fasteners or fittings.
- 1558 (3) The transfer port or ports between the compartments ~~shall~~ **must** consist of **at least** two (2) ~~or more~~ openings with a
- 1559 combined area of at least fifty (50) square inches. A continuous port across the width of the divider wall is also acceptable.
- 1560 (4) The transfer port or ports ~~shall~~ **must** be located in the middle twenty-five percent (25%) of the liquid depth.
- 1561 (5) An access opening meeting the requirements of section 69(o) of this rule must be provided above each compartment,
- 1562 including a riser meeting the requirements of section 69(p) of this rule, for maintenance pumping above each
- 1563 compartment.
- 1564 (f) When multiple tanks are used in series, no single tank may be less than seven hundred fifty (750) gallons. The larger
- 1565 of the two (2) tanks must be upstream of the other.
- 1566 (g) When sewage is pumped into a septic tank using a grinder pump:
- 1567 (1) a two-compartment tank must be used with the sewage pumped into the first compartment; or
- 1568 (2) two (2) tanks in series must be used, with the sewage pumped into the first tank.
- 1569 (h) Tanks fitted with aeration units for aerobic digestion ~~shall~~ **must**:
- 1570 (1) conform to NSF/ANSI Standard ~~40-2010~~ **40-2023**, Residential Wastewater Treatment Systems, for Class I plants or
- 1571 ~~to~~ standards of an equivalent third party product testing laboratory acceptable to the department that meet or exceed the
- 1572 NSF/ANSI standards;
- 1573 (2) bear a current registered certification mark;
- 1574 (3) provide a minimum aerobic treatment capacity to properly process the design daily flow;
- 1575 (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
- 1576 (5) discharge into a soil absorption system or other treatment system as approved in accordance with section 49~~(h)~~**(i)** of
- 1577 this rule.
- 1578 (i) Water softener backwash ~~shall~~ **must** be discharged to:
- 1579 (1) the building sewer;
- 1580 **(2) an effluent or sewage lift station;**
- 1581 ~~(2)~~ **(3)** a secondary treatment device;
- 1582 ~~(3)~~**(4)** the effluent sewer on the downstream side of either the septic tank or ~~the~~ secondary treatment device;
- 1583 ~~(4)~~**(5)** the dosing tank serving the soil absorption system; or
- 1584 ~~(5)~~**(6)** a separate soil absorption system constructed specifically for the water softener backwash.

1585

1586 *(Indiana Department of Health; 410 IAC 6-10.1-68; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*

1587 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1588

1589 SECTION 65. 410 IAC 6-10.1-69 IS AMENDED TO READ AS FOLLOWS:

1590

1591 410 IAC 6-10.1-69 Septic tanks: construction details

1592 Authority: IC 16-19-3-4

1593 Affected: IC 16-19-3-4

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1595 Sec. 69. (a) The minimum water depth in any compartment ~~shall~~ **must** be thirty (30) inches.

1596 (b) The maximum water depth for calculating septic tank capacity ~~shall~~ **must** not exceed six and one-half (6 1/2) feet.

1597 (c) The inlet baffle or sanitary tee ~~shall~~ **must** extend at least:

1598 (1) eight (8) inches below the liquid level; and

1599 (2) to the top of the inlet sewer.

1600 (d) ~~All~~ New septic tanks must be provided with an outlet filter that meets or exceeds the requirements of section 72 of

1601 this rule.

1602 (e) ~~Any~~ A septic tank not provided with an outlet filter ~~shall~~ **must** be provided with:

1603 (1) an outlet baffle or sanitary tee that extends below the liquid level at least ten (10) inches, but not more than forty
1604 percent (40%) of the tank liquid depth; and

1605 (2) a gas deflection baffle that is:

1606 (A) constructed of durable materials not subject to corrosion or decay; and

1607 (B) configured to deflect rising gas bubbles toward the interior of the tank.

1608 (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~~
1609 inlet and outlet baffles or tees.

1610 (g) Scum storage capacity (space between the liquid level and the top of the outlet baffle or tees) ~~shall~~ **must** be not less
1611 than twelve and one-half percent (~~12.5%~~) **(12 ½%)** of the liquid depth of the septic tank.

1612 (h) The inlet baffle ~~shall~~ **must** not be more than twelve (12) inches nor less than four (4) inches from the inside of the
1613 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
1614 end of the septic tank. Baffles ~~shall~~ **must** be constructed of durable materials not subject to corrosion or decay.

1615 (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
1616 liquid level.

1617 (j) Reinforced concrete septic tanks ~~shall~~ **must** be constructed of concrete **designed to withstand all structural,**
1618 **hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and** with a compressive strength of four thousand (4,000)
1619 pounds per square inch or greater.

1620 (k) Concrete septic tank walls ~~shall~~ **must** be at least two and one-half (~~2 1/2~~ ½) inches or greater in thickness. The design
1621 must allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1622 (l) Concrete septic tank bottoms ~~shall~~ **must** conform to the specifications set forth for septic tank walls.

1623 (m) Concrete septic tank tops ~~shall~~ **must** be ~~a minimum of~~ **at least** four (4) inches in thickness and reinforced with three-
1624 eighths (3/8) inch reinforcing rods in a twelve (12) inch grid or equivalent.

1625 (n) Type III fibers, **meeting ASTM C 1116-23** are permitted only as a secondary reinforcing material. Fiber additions
1626 will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

1627 (o) ~~All~~ **Access** openings ~~shall~~ **must** meet the following requirements:

1628 (1) At least one (1) opening eighteen (18) inches in minimum dimension per compartment for pumping access.

1629 (2) An access opening ~~shall~~ **must** be located over each of the following:

1630 (A) The inlet.

1631 (B) The outlet.

1632 (C) The sanitary tee or baffle, if present, on the partition or divider wall of a two-compartment septic tank.

1633 (3) ~~All~~ **Access** openings ~~shall~~ **must** be sized and positioned in ~~such a way as to allow~~ **that allows** for maintenance,
1634 cleaning, and servicing of septic tanks and outlet filters.

1635 (p) ~~All~~ **Risers** ~~shall~~ **must** meet the following requirements:

1636 (1) Risers and riser covers ~~shall~~ **must** be made of corrosion resistant materials and withstand design external loads.

1637 (2) The lower section of the riser assembly ~~shall~~ **must** be:

1638 (A) cast into the tank lid; or

1639 (B) sealed to the top of the tank with butyl sealant meeting ASTM C 990-~~09~~**25** to provide a watertight seal.

1640 (3) ~~All~~ **Risers** ~~shall~~ **must** be fitted with watertight, securely fastened covers.

1641 (q) Pipe connectors ~~shall~~ **must** be provided that meet the following requirements:

1642 (1) Each pipe penetration ~~shall~~ **must** be sealed with a resilient rubber pipe connector that uses an expansion ring, a tension
1643 band, or a take-up device for mechanically compressing the resilient portion of the connector against the pipe.

1644 (2) ~~All~~ **Metallic** mechanical devices, including expansion rings, tension bands, take-up devices, and screws,
1645 ~~shall~~ **must** be constructed of series 300 stainless steel.

1646 (3) Connectors ~~shall~~ **must** conform to:

1647 (A) ASTM C 1644-~~06~~**24**, Standard Specification for Resilient Connectors Between Reinforced Concrete On-
1648 Site Wastewater Tanks and Pipes; or

1649 (B) ASTM C 923-~~08~~**20(2025)**, Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box
1650 Sections Using Preformed Flexible Joint Sealants.

1651
1652 *(Indiana Department of Health; 410 IAC 6-10.1-69; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); filed Apr 17,*
1653 *2014, 10:10 a.m.: [20140514-IR-410130351FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#);*
1654 *readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

1655 SECTION 66. 410 IAC 6-10.1-70 IS AMENDED TO READ AS FOLLOWS:
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410 IAC 6-10.1-70 Dosing tanks
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

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

- (1) ~~must be~~ watertight and constructed of durable material such as **pre-cast concrete, fiber-reinforced polyester, or thermoplastic material** fiberglass, polyethylene, or polypropylene; and
- (2) ~~shall be~~ protected from corrosion.

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

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

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

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

(f) The liquid holding capacity of a dosing tank must equal the dose volume required by this rule for each type of soil absorption system, in addition to the volume of liquid that will drain back from any effluent force main when pumping ~~ceases~~ **stops**. Additional capacity must be provided to:

- (1) keep the dosing tank effluent pump submerged at all times; and
- (2) provide sufficient freeboard for a high water alarm **and a lag float, if required**.

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

- (1) Each pipe penetration ~~shall~~ **must** be sealed with a flexible, resilient rubber pipe connector that uses an expansion ring, a tension band, or a take-up device for mechanically compressing the resilient portion of the connector against the pipe.
- (2) ~~All~~ **metallic** mechanical devices, including expansion rings, tension bands, take-up devices, and screws, ~~shall~~ **must** be constructed of series 300 stainless steel.
- (3) Conform to:
 - (A) ASTM C 1644-~~0624~~, Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes; or
 - (B) ASTM C 923-~~0820~~(**2025**), Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.

(h) Each dosing tank ~~shall~~ **must** be fitted with an effluent **or sewage** pump sized in conformance with section 73 **of this 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 alarm switch set at a level above the design high water mark. The alarm ~~shall~~ **must**:

- (1) be on a separate circuit from the effluent **or sewage** pump; and
- (2) include an audible and **a** visible alarm.

(i) Switches that are comparable to mercury float level switches ~~shall~~ **must** be used for dosing tank ~~effluent~~ pump start and stop controls and for high water alarms.

(Indiana Department of Health; 410 IAC 6-10.1-70; 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 67. 410 IAC 6-10.1-70.1 IS ADDED TO READ AS FOLLOWS:

410 IAC 6-10.1-70.1 Sewage Holding Tanks
Authority: IC 16-19-3-4
Affected: IC 16-19-3-4

Sec. 70.1. (a) A sewage holding tank is an alternative method of sewage disposal in accordance with IC 16-41-25-9.

(b) Sewage holding tanks must be:

- (1) watertight and constructed of pre-cast concrete, fiber-reinforced polyester, or thermoplastic material; and**
- (2) protected from corrosion.**

- 1711 (c) A temporary sewage holding tank may be used:
- 1712 (1) where necessary to prevent continued discharge of sewage from a failed existing commercial on-site sewage
- 1713 system;
- 1714 (2) as a temporary storage facility where occupancy of the commercial facility must continue while an existing
- 1715 commercial on-site sewage system is being replaced or renovated; or
- 1716 (3) when soil conditions exist that preclude the prompt construction of a soil absorption system on a site that has
- 1717 already received a construction permit.
- 1718 (d) All sewage holding tanks must have a minimum capacity of:
- 1719 (1) A septic tank, or a septic tank and a dosing tank, as required by this rule for tanks that will eventually precede
- 1720 a soil absorption field; or
- 1721 (2) For permanent sewage holding tanks, the greater of
- 1722 (A) one thousand (1,000) gallons; or
- 1723 (B) at least three (3) times the design daily flow of the commercial facility as determined by this rule.
- 1724 (e) Reinforced concrete sewage holding tanks must be constructed of concrete designed to withstand all structural,
- 1725 hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and with a compressive strength of four
- 1726 thousand (4,000) pounds per square inch or greater.
- 1727 (f) Concrete sewage holding tank walls and bottoms must be at least two and one-half (2 1/2) inches or greater in
- 1728 thickness. The design shall allow at least one (1) inch cover over reinforcing steel or welded wire fabric.
- 1729 (g) Concrete sewage holding tank tops shall be at least four (4) inches in thickness and reinforced with three-
- 1730 eighths (~~3/8~~)(³/₈) inch reinforcing rods in a twelve (12) inch grid or equivalent.
- 1731 (h) ASTM C 1116-23 type III fibers are permitted only as a secondary reinforcing material. Fiber additions will
- 1732 be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing
- 1733 material.
- 1734 (i) Sewage holding tanks shall have at least one (1) opening eighteen (18) inches in minimum diameter for pumping
- 1735 access positioned in a way as to allow for maintenance, cleaning and servicing.
- 1736 (j) Sewage holding tanks are required to have an operating permit issued by the department or local health
- 1737 department.
- 1738 (k) Receipts from pumping and maintenance of a sewage holding tank, and other documents for repair or
- 1739 modification of a sewage holding tank, must be submitted to the department or local health department, whomever
- 1740 issued the operating permit, within thirty (30) days of the service provided or in a time frame approved by the
- 1741 department or local health department.
- 1742 (l) In the event that a sewage holding tank is not operated in a safe and sanitary manner and in accordance with
- 1743 IC 16-41-25-9 and this rule, the department or local health department may require the commercial facility to:
- 1744 (1) connect to sanitary sewer if the sanitary sewer is available within three hundred (300) feet of the affected
- 1745 property line and is available for connection at a construction cost and connection fee estimated not to exceed one
- 1746 hundred fifty percent (150%) of the cost estimated for installing an on-site sewage system to serve the commercial
- 1747 facility; or
- 1748 (2) install an on-site sewage system with a soil absorption field in compliance with this rule or connect to an existing
- 1749 soil absorption system that has not failed.

1750 (Indiana Department of Health; 410 IAC 6-8.3-70.1)

1751 SECTION 68. 410 IAC 6-10.1-71 IS AMENDED TO READ AS FOLLOWS:

1752 410 IAC 6-10.1-71 Septic tanks and dosing tanks, **and sewage holding tanks**: installation and maintenance

1753 Authority: IC 16-19-3-4

1754 Affected: IC 16-19-3-4

1755 Sec. 71. (a) Septic tanks, ~~and~~ dosing tanks, **and sewage holding tanks** shall be installed level on:

1756 (1) undisturbed soil;

1757 (2) sand;

1758 (3) aggregate not larger than one and one-half (1 1/2) inches in diameter; or

1759 (4) an engineered base.

1760 (b) ~~All~~ Drain holes in septic, ~~tanks, and~~ dosing, ~~tanks,~~ **and sewage holding tanks** shall be:

- 1765 (1) fitted with a threaded fitting, cast in place, and plugged with a threaded plug; or
 1766 (2) plugged with an expandable pipe plug with a wing nut.
 1767 (c) When the top of the septic tank, ~~or~~ dosing tank, **or sewage holding tank** is installed at or above grade, all access
 1768 openings shall be fitted with watertight, securely fastened covers.
 1769 (d) When the top of the septic, ~~tank, or~~ dosing, ~~tank, or~~ **sewage holding tank** is installed below grade, risers ~~shall~~ **must**:
 1770 (1) be installed over access openings used for pumping and ~~for~~ maintenance of the outlet filter in the septic tank;
 1771 (2) be large enough for access to the tank through the access opening in the top of the septic, ~~tank, or~~ dosing, ~~tank, or~~
 1772 **sewage holding tank** to clean the tanks and ~~to~~ maintain floats, sensors, filters and pumps;
 1773 (3) have the lower section sealed to the top of the tank with butyl sealant meeting ASTM C 990-~~09~~**25** to provide a
 1774 watertight seal, if the riser assembly is not cast into the tank lid;
 1775 (4) have joints between riser sections sealed in accordance with the manufacturer's instructions so as to be watertight;
 1776 (5) extend to or above final grade; ~~and~~
 1777 (6) be fitted with a watertight cover securely fastened to the riser; ~~and~~
 1778 **(7) have a secondary safety device under each riser lid that extends to the surface.**
 1779 ~~(e) Septic tanks and dosing tanks shall not be installed with the top of the riser below the RFE.~~
 1780 ~~(fe) All~~ **The** joints in the sewer connecting septic tanks in series, ~~or~~ septic tanks to dosing tanks, **or sewage holding**
 1781 **tanks shall must** be sealed in accordance with the manufacturer's instructions ~~in order~~ to be watertight and ~~to~~ withstand the
 1782 pressures exerted on them.
 1783 **(f) Tanks must be installed using the manufacturer's recommended buoyancy controls when conditions necessitate**
 1784 **buoyancy control.**

1785
 1786 *(Indiana Department of Health; [410 IAC 6-10.1-71](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*
 1787 *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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1789 SECTION 69. 410 IAC 6-10.1-72 IS AMENDED TO READ AS FOLLOWS:
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1791 410 IAC 6-10.1-72 Outlet filters
 1792 Authority: IC 16-19-3-4
 1793 Affected: IC 16-19-3-4
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- 1795 Sec. 72. (a) An outlet filter ~~shall~~ **must** be installed in the septic tank of new on-site sewage systems and existing on-site
 1796 sewage systems requiring a new septic tank.
 1797 (b) For on-site sewage systems requiring repair, or soil absorption systems requiring replacement, the department may
 1798 require an outlet filter. The outlet filter, if required by the department, must meet the requirements of this section.
 1799 (c) Outlet filters ~~shall~~ **must** be located in the outlet end of:
 1800 (1) a single septic tank when not used in series;
 1801 (2) the second compartment of two-compartment septic tanks;
 1802 (3) the last septic tank when two (2) or more tanks are used in series; or
 1803 (4) a secondary watertight structure located after the last septic tank ~~prior to~~ **before** a dosing tank, **an effluent lift station,**
 1804 distribution box, or secondary treatment unit.
 1805 (d) An access opening of eighteen (18) inches in minimum dimension ~~shall~~ **must** be:
 1806 (1) located over the outlet filter; and
 1807 (2) provided with a riser to grade that meets the minimum requirements of section 69(o) and 69(p) of this rule.
 1808 (e) Outlet filters ~~shall~~ **must**:
 1809 (1) conform to NSF/ANSI Standard 46-~~2010a~~**2023**, Evaluation of Components and Devices Used in Wastewater
 1810 Treatment Systems, maintain a current product listing with an ANSI accredited third-party certifier, and bear a listing
 1811 mark;
 1812 (2) be rated by the manufacturer for a daily flow equal to or greater than the **required** liquid capacity of the septic tank(s);
 1813 (3) prevent the passage of solids larger than one-eighth ($1/8$) ~~of an~~ inch;
 1814 (4) have inlets and outlets of at least four (4) inches in diameter;
 1815 (5) function without a bypass of unfiltered sewage, sludge, or scum, during normal use;
 1816 (6) be made of a noncorrosive material designed for use in sewage applications;
 1817 (7) maintain structural integrity, not tearing or distorting so as to make it inoperable during normal operation, throughout
 1818 the life of the device; and

- 1819 (8) have removable outlet filter cartridges.
- 1820 (f) The outlet filter housing ~~shall~~ **must**:
- 1821 (1) connect to the outlet pipe or structure wall with noncorrosive fasteners;
- 1822 (2) extend at least five (5) inches above the liquid level of the tank;
- 1823 (3) be installed so the bottom of the filter inlet extends below the liquid level at least ten (10) inches, but not more than
- 1824 forty percent (40%) of the septic tank liquid depth;
- 1825 (4) include a gas deflection device that remains in place when the filter cartridge is removed; and
- 1826 (5) be solvent welded to a PVC Schedule 40 outlet pipe that meets the minimum requirements of section 75(a)(1) or
- 1827 75(a)(2) of this rule, creating a watertight and mechanically sound joint.
- 1828 (g) A filter alarm may be installed in the septic tank to indicate when the outlet filter is in need of service.
- 1829 (h) An outlet filter with cartridge ~~shall~~ **must** remain in service for the life of the septic tank.
- 1830 (i) Outlet filter manufacturers shall provide installation and maintenance instructions with each outlet filter. Outlet filters
- 1831 ~~shall~~ **must** be:
- 1832 (1) installed according to manufacturer's recommendations;
- 1833 (2) located so they do not interfere with pumping and cleaning of the septic tank; and
- 1834 (3) placed to allow accessibility for routine maintenance without entering the septic tank or outlet structure if separate
- 1835 from the septic tank.
- 1836 (j) Outlet filters ~~shall~~ **must** be serviced according to the manufacturer's service recommendations, but ~~no~~ **not** less
- 1837 frequently than each time the septic tank is cleaned, as follows:
- 1838 (1) The outlet filter ~~shall~~ **must** be:
- 1839 (A) cleaned and washed so ~~that~~ the filter waste enters the septic tank; or
- 1840 (B) exchanged with a clean filter.
- 1841 (2) All contaminated ~~effluent~~ **outlet** filters ~~shall~~ **must** be treated as untreated sewage and handled properly during the
- 1842 cleaning or exchange process.

1843

1844 *(Indiana Department of Health; 410 IAC 6-10.1-72; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); filed Apr 17,*

1845 *2014, 10:10 a.m.: [20140514-IR-410130351FRA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#);*

1846 *readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

1847

1848 SECTION 70. 410 IAC 6-10.1-73 IS AMENDED TO READ AS FOLLOWS:

1849

1850 410 IAC 6-10.1-73 Effluent pumps

1851 Authority: IC 16-19-3-4

1852 Affected: IC 16-19-3-4

1853

1854 Sec. 73. (a) ~~All~~ Effluent pumps ~~shall~~ **must** be:

- 1855 (1) submersible pumps suitable for use in a corrosive atmosphere;
- 1856 (2) sized to deliver the total design flow rate while meeting the total dynamic head requirements of the on-site sewage
- 1857 system;
- 1858 (3) connected to pump discharge piping that is adequately secured; and
- 1859 (4) installed in ~~such a manner as to allow~~ **way that allows** for removal without entering the ~~dosing tank or~~ dewatering
- 1860 the dosing tank.
- 1861 (b) Duplex pumps ~~shall~~ **must** be used for flows greater than seven hundred fifty (750) gallons per day.
- 1862 (c) Effluent pumps ~~shall~~ **must** be provided with a suitable means of quick, convenient disconnection from the discharge
- 1863 piping, as follows:
- 1864 (1) Fittings and valves ~~shall~~ **must** be of compatible corrosion resistant material.
- 1865 (2) A quick disconnect coupling, breakaway flange, or similar disconnect device ~~shall~~ **must** be provided for each pump
- 1866 discharge pipe.
- 1867 (3) Quick disconnect couplings and valves ~~shall~~ **must** be readily accessible from the ground surface without entering the
- 1868 dosing tank.
- 1869 (4) Submersible pumps ~~shall~~ **must** be provided with a corrosion resistant lifting apparatus such as a rope or chain to
- 1870 facilitate removal of the pump. For projects involving flows ~~greater~~ **more** than seven hundred fifty (750) gallons per day,
- 1871 pumps must be mounted on guide rails manufactured to withstand the corrosive environment of a dosing tank. **Guide**
- 1872 **rails are not required if documentation is provided with the construction plan submittal that demonstrates each**

1873 **pump weighs less than fifty (50) pounds and that each pump will not be installed deeper than eight (8) feet below**
1874 **grade.**

1875 (d) ~~All~~ floats for pump operation ~~shall~~ **must** be mounted according to manufacturer's specifications using fasteners
1876 manufactured for that purpose.

1877 (e) Controls other than liquid level sensors ~~shall~~ **must** not be located within the dosing tank.

1878 (f) Junction boxes ~~shall~~ **must** be rated as a NEMA 4X, National Electrical Manufacturers Association, NEMA 250-
1879 ~~2008~~2020. ~~All~~ The connectors to the junction box ~~shall~~ **must** form a watertight seal:

1880 (1) to the junction box; and

1881 (2) between connector openings and incoming wires.

1882 (g) ~~Any~~ ~~A~~ connector not used for wiring ~~shall~~ **must** be fitted with a watertight plug.

1883
1884 *(Indiana Department of Health; 410 IAC 6-10.1-73; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1885 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1887 SECTION 71. 410 IAC 6-10.1-74 IS AMENDED TO READ AS FOLLOWS:

1888
1889 410 IAC 6-10.1-74 Distribution box specifications

1890 Authority: IC 16-19-3-4

1891 Affected: IC 16-19-3-4

1892
1893 Sec. 74. (a) Concrete distribution boxes ~~shall~~ **must** be constructed of concrete with a compressive strength of four
1894 thousand (4,000) pounds per square inch or greater. Other materials may be considered on a case-by-case basis. ~~All materials~~
1895 ~~must:~~

1896 **(b) The distribution box material shall:**

1897 **(1) be watertight;**

1898 ~~(1)~~ **(2)** be resistant to corrosion and decay; and

1899 ~~(2)~~ **(3)** have sufficient structural strength to contain sewage and resist lateral compressive and bearing loads.

1900 ~~(b)~~ **(c)** The minimum interior dimension of a distribution box ~~shall~~ **must** be twelve (12) inches.

1901 ~~(c)~~ **(d)** The distribution box **or the top of the distribution box riser** ~~shall~~ **must** be fitted with a watertight, **securely**
1902 **fastened** removable lid for access. ~~The distribution box may be fitted with a riser to the ground surface. The riser joints and the~~
1903 ~~lid connection to the riser must be watertight.~~

1904 **(e) For all newly installed distribution boxes, when more than one outlet of a distribution box is used to distribute**
1905 **effluent to a soil absorption field and will be installed below final grade, a riser must be installed over the box and extend**
1906 **to or above final grade. The joints between riser sections must be watertight.**

1907 ~~(e)~~ **(f)** Distribution boxes **must be stabilized to prevent movement during installation and operation.**

1908 ~~(f)~~ **(g)** The interior bottom of the distribution box ~~shall~~ **must** be at least four (4) inches below the invert elevation of
1909 the effluent ports. ~~A minimum of~~ **At least** eight (8) inches freeboard above the invert elevation of the effluent port ~~shall~~ **must** be
1910 provided.

1911 ~~(g)~~ **(h)** The influent port ~~shall~~ **must** be located or baffled to prevent unequal distribution of effluent to the distribution
1912 system **as follows:**

1913 **(1)** If baffles are provided, the baffles and their mounts or retainers ~~shall~~ **must:**

1914 ~~(1)~~ **(A)** provide a passageway for effluent between the box bottom and ~~the~~ bottom edge of the baffle of not more
1915 than two (2) inches; and

1916 ~~(2)~~ **(B)** extend to one (1) inch above the top of the inlet.

1917 ~~(1)~~ **(2)** An elbow or a sanitary tee in the vertical position may be used in place of a baffle, as follows:

1918 ~~(1)~~ **(A)** If an elbow is used, the elbow must:

1919 ~~(A)~~ **(i)** be a ninety (90) degree elbow;

1920 ~~(B)~~ **(ii)** be turned down into the distribution box with the end of the elbow not more than two (2) inches
1921 above the bottom of the distribution box; and

1922 ~~(C)~~ **(iii)** include a ~~weep~~vent hole in the upper part of the elbow.

1923 ~~(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
1924 of the distribution box and the top of the sanitary tee **must be** at least one (1) inch below the lid.

1925 ~~(g)~~ ~~(h)~~ **(i)** Each distribution box ~~shall~~ **must** be designed to split the effluent flow equally among the effluent ports. ~~All~~
1926 **The effluent ports shall must be:**

- 1927 (1) at the same elevation;
1928 (2) of the same diameter; and
1929 (3) located at an elevation at least one (1) inch lower than the influent port.

1930
1931 *(Indiana Department of Health; 410 IAC 6-10.1-74; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1932 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1933
1934 SECTION 72. 410 IAC 6-10.1-75 IS AMENDED TO READ AS FOLLOWS:

1935
1936 410 IAC 6-10.1-75 Pipe specifications

1937 Authority: IC 16-19-3-4
1938 Affected: IC 16-19-3-4

1939
1940 Sec. 75. (a) Piping used in a commercial on-site sewage system ~~shall~~ **must** meet or exceed the following applicable
1941 standards:

1942 (1) Gravity sewer pipe and gravity effluent sewer pipe ~~shall~~ **must** meet the following standards:

1943 (A) For PVC pipe, the following:

1944 (i) ~~ASTM D 2665-12~~ **D 2665-25** for four (4) inch and six (6) inch pipe only.

1945 (ii) ~~ASTM F 891-10 SDR 35 for four (4) inch through eight (8) inch cellular core pipe with minimum~~
1946 ~~pipe stiffness of 50 (PS 50).~~

1947 (iii) ~~(ii) ASTM D 3034-08~~ **D 3034-24e1** for the following: ~~(AA) SDR 26 and SDR 35 for four (4) inch~~
1948 ~~through fifteen (15) inch pipe.~~

1949 ~~(BB) SDR 26 with gasketed compression type joints for special crossings above or below~~
1950 ~~potable water lines where the vertical clearance of eighteen (18) inches required in section~~
1951 ~~61(d)(2) of this rule cannot be met.~~

1952 (B) For ABS pipe, the following:

1953 (i) ~~ASTM D 2661-11~~ **D 2661-24** for four (4) inch and six (6) inch pipe only.

1954 (ii) ~~ASTM D 2680-01 (Reapproved 2009)~~ **D 2680-20(2025)** for eight (8) inch through fifteen (15) inch
1955 pipe.

1956 (iii) ~~ASTM D 2751-05 SDR 23.5 or SDR 35 for four (4) inch and six (6) inch pipe only.~~

1957 (C) ~~ASTM F 480-12~~ **ASTM F 480-22**, Schedule 40 and 80.

1958 (D) Waterworks grade ductile iron pipe with mechanical or tyton joints.

1959 (2) Pressure sewer, effluent force main, manifold, and pressure distribution lateral pipe ~~shall~~ **must** meet the following
1960 standards:

1961 (A) For PVC pipe, the following:

1962 (i) ~~ASTM D 2241-09~~ **ASTM D 2241-25a** SDR 13.5, SDR 17, SDR 21, or SDR 26.

1963 (ii) ~~ASTM D 1785-06~~ **ASTM D 1785-21a** Schedule 40, 80, or 120.

1964 (B) ~~For ABS pipe, the following:~~

1965 (i) ~~ASTM D 1527-99 (Reapproved 2005) Schedule 40, 80, or 120, with solvent weld fittings.~~

1966 (ii) ~~ASTM D 2282-99 (Reapproved 2005) SDR 13.5, SDR 17, SDR 21, or SDR 26.~~

1967 **(B) ASTM D 3035-22 DR 7, 9, 11, 13.5, 17, or 21 with required heat fusion joints being made in accordance**
1968 **with ASTM F 2620-24.**

1969 (b) ~~Gasketed compression type joints~~ **Upgraded piping** must be used on ~~pressure sewers when they are located ten (10)~~
1970 ~~feet or less from a water line~~ **do not meet the required horizontal and vertical separations required in section 61(e) and (f).**

1971 (c) Soil absorption system gravity distribution laterals ~~shall~~ **must** meet one (1) of the following standards:

1972 (1) Four (4) inch diameter sewer pipe listed in subsection (a)(1) and (a)(2).

1973 (2) Four (4) inch diameter PVC pipe meeting ASTM D 2729-~~11~~ **21**.

1974 (3) Four (4) inch diameter smooth interior wall polyethylene pipe meeting ASTM F 810-~~07~~ **12(2024)** or AASHTO M252-
1975 ~~09~~ **23** Type SP.

1976 (d) Gravity distribution laterals ~~shall~~ **must** have two (2) or three (3) rows of holes separated by one hundred twenty (120)
1977 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.

1978 (e) Pipe for subsurface drainage systems ~~shall~~ **must** meet the following standards for polyethylene pipe:

1979 ~~(1) ASTM F 405-05.~~

1980 ~~(2) (1) ASTM F 667-12~~ **(1) ASTM F 667-21 (2021).**

1981 ~~(3)~~ (2) NRCS 606, ~~September 2003~~ 2022.

1982
1983 *(Indiana Department of Health; 410 IAC 6-10.1-75; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
1984 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1985
1986 SECTION 73. 410 IAC 6-10.1-76 IS AMENDED TO READ AS FOLLOWS:

1987
1988 410 IAC 6-10.1-76 Aggregate specifications

1989 Authority: IC 16-19-3-4

1990 Affected: IC 16-19-3-4

1991
1992 Sec. 76. (a) Aggregate to be used in soil absorption systems ~~shall~~ **must** be gravel, stone, or other materials listed by the
1993 department. Crushed limestone aggregate, if used, ~~shall~~ **must** be rated as forty percent (40%) or less on the Los Angeles abrasion
1994 quality requirement of the ~~INDOT 2012~~ 2024 Standard Specifications, Section 904, Aggregates.

1995 (b) Aggregate **must be**:

1996 (1) ~~shall be~~ a mixture with no aggregate smaller in size than one-half (~~1/2~~ 1/2) inch in diameter nor any aggregate larger
1997 than two and one-half (2 ~~1/2~~ 1/2) inches in diameter; and

1998 (2) ~~must be~~ larger than the openings in the gravity distribution laterals.

1999 (c) Tire chips may be used in place of stone for soil absorption systems on a one-for-one basis, volumetrically. Tire chips
2000 used for soil absorption systems must have a nominal size of two (2) inches with chip dimensions being not less than one-half
2001 (~~1/2~~ 1/2) inch and not greater than four (4) inches.

2002 (d) Fines, sand, and clay ~~shall~~ **must** be removed from the aggregate ~~prior to~~ **before** its placement in the trench.

2003
2004 *(Indiana Department of Health; 410 IAC 6-10.1-76; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2005 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

2006
2007 SECTION 74. 410 IAC 6-10.1-77 IS AMENDED TO READ AS FOLLOWS:

2008
2009 410 IAC 6-10.1-77 Barrier materials

2010 Authority: IC 16-19-3-4

2011 Affected: IC 16-19-3-4

2012
2013 Sec. 77. (a) The physical characteristics of barrier materials ~~shall~~ **must** have the following minimum average roll values
2014 ~~(MARV):~~

2015 (1) A grab tensile strength equal to or greater than eighty (80) pounds in machine direction (MD) and cross-machine
2016 direction (CD) in accordance with ASTM D 4632-~~08~~15a(2023).

2017 (2) A grab tensile elongation ~~@~~at break of equal to or greater than fifty percent (50%) in MD and CD in accordance with
2018 ASTM D 4632-~~08~~15a(2023).

2019 (3) A trapezoidal tear strength equal to or greater than thirty (30) pounds in MD and CD in accordance with ASTM D
2020 4533-~~11~~15(2023).

2021 (4) A CBR puncture resistance equal to or greater than one hundred seventy-five (175) pounds in accordance with ASTM
2022 D 6241-~~04~~(Reapproved 2009)22a.

2023 (5) A permittivity of equal to or greater than 0.5 sec⁻¹ in accordance with ASTM D 4491-~~99a~~(Reapproved 2009)22.

2024 (6) A water flow rate equal to or greater than one hundred fifty (150) gallons per minute per square foot in accordance
2025 with ASTM ~~D 4355-07~~ D 4491-22.

2026 (7) A UV resistance at five hundred (500) hours equal to or greater than seventy percent (70%) strength retained in
2027 accordance with ASTM D ~~4491-99a~~(Reapproved 2009)D 4355-21.

2028 (8) An apparent opening size (AOS) (U.S. Sieve) equal to or greater than forty (40) and equal to or less than seventy (70)
2029 sieve in accordance with ASTM D 4751-~~04~~21a.

2030 (b) The chemical characteristics of barrier materials ~~shall~~ **must** be:

2031 (1) nonbiodegradable;

2032 (2) resistant to acids and alkalis within a pH range of four (4) to ten (10); and

2033 (3) resistant to common solvents.

2035 (Indiana Department of Health; [410 IAC 6-10.1-77](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed
 2036 Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))
 2037

2038 SECTION 75. 410 IAC 6-10.1-78 IS AMENDED TO READ AS FOLLOWS:
 2039

2040 410 IAC 6-10.1-78 Subsurface trench on-site sewage system site suitability

2041 Authority: IC 16-19-3-4

2042 Affected: IC 16-19-3-4
 2043

2044 Sec. 78. (a) On-site sewage system feasibility, location, and selection ~~shall~~ **must** be based on the:

- 2045 (1) site evaluation;
- 2046 (2) information obtained from the on-site soils evaluation; and
- 2047 (3) DDF.

2048 If site conditions are acceptable, subsurface trench soil absorption systems are the systems of choice.

2049 (b) ~~All of the~~ The following site conditions in this section must be met if subsurface trench on-site sewage systems are to
 2050 be constructed:

2051 (1) Sufficient area exists on the lot for an appropriately sized subsurface trench on-site sewage system, while meeting
 2052 the:

- 2053 (A) separation distances of section 61 of this rule; and
- 2054 (B) dispersal area requirements of section 62 of this rule.

2055 (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
 2056 surface and subsurface drainage can be diverted around the site, a toe slope position can be used.

2057 (3) The site has a slope of fifteen percent (15%) or less.

2058 (4) Site conditions permit distribution of effluent to each trench of the subsurface soil absorption system so that each
 2059 trench can be loaded with a proportionate volume of effluent.

2060 (5) Site conditions permit any seasonal high water table at the site of the proposed subsurface trench soil absorption
 2061 system to be lowered to at least thirty-four (34) inches below original grade, in accordance with section 63 of this rule.

2062 (6) When there are no **limiting layer** horizons from original grade to thirty-four (34) inches below original grade, ~~in a~~
 2063 ~~soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric~~
 2064 ~~acid solution, unless:~~

2065 (A) ~~the on site soils evaluation report shows that the presence of the horizon is not detrimental to the proper~~
 2066 ~~functioning of an on site sewage system; and~~

2067 (B) ~~the determination in clause (A) is made using the guidelines as set forth in the soil manuals, technical~~
 2068 ~~bulletins, and handbooks of the NRCS guidelines and as approved by the department.~~

2069 (7) ~~When there are no soil horizons at the site from the original grade to thirty-four (34) inches below the original grade~~
 2070 ~~with:~~

2071 (A) ~~less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments~~
 2072 ~~by volume; or~~

2073 (B) ~~greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse~~
 2074 ~~fragments by volume.~~

2075 (8) (7) ~~All~~ The soil horizons at the site from the original grade to thirty-four (34) inches below the original grade have a
 2076 soil loading rate of not less than twenty-five hundredths (0.25) and not more than one and twenty-hundredths (1.20)
 2077 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 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 | >1.20 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | |
|--|------|------|------|------|------|------|------|------|
| Sand | | | | | | | | |
| 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:

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

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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) ~~lineal~~ **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 ~~utilized~~ **used**.

(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~~
- ~~(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 STRUCTURE CLASSES | | | | | | | | |
| SOIL TEXTURE CLASSES | Single Grain | Granular | Strong: Angular, Sub-Angular Blocky, Prismatic | Moderate: Angular, Sub-Angular Blocky, Prismatic | Weak: Angular, Sub-Angular Blocky; Prismatic; Platy ¹ | Fragile 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. | | | | | | | | |

(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% | ≥ 30 | ≥ 24 | ≥ 24 | ≥ 24 | ≥ 24 | ≥ 20 |

| | | | | | | |
|--|-------|-------|-----------------------|------|------|------|
| Coarse Fragments by Volume | | | | | | |
| 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](#))

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SECTION 79. 410 IAC 6-10.1-82 IS AMENDED TO READ AS FOLLOWS:

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410 IAC 6-10.1-82 Subsurface trench on-site sewage systems: general design and construction requirements

2238

Authority: IC 16-19-3-4

2239

Affected: IC 16-19-3-4

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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:

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(1) The DDF.

2243

(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.

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(3) The absorption area ~~shall~~ **must** be computed using the following formula:

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2246

2247

2248

$$\text{Area} = \frac{\text{DDF Design Daily Flow (in gpd)}}{\text{Soil loading rate in gpd/eq-ft}^2}$$

2249

(b) **The area of the on-site sewage system and dispersal area must be protected from disturbance before, during, and after construction of the system. The department or the local health department may require:**

2250

(1) a site visit and evaluation prior to issuing a construction permit; and

2251

(2) the system components to be marked and identified at the site prior to the site visit.

2252

(~~b~~) (c) Subsurface trench soil absorption systems ~~shall~~ **must** be as long and narrow as the site permits while not exceeding maximum trench length.

2253

2254

2255 ~~(c)~~ **(d)** All subsurface trench on-site sewage systems **shall must** be located in accordance with the separation distances
2256 shown in Table II in section 61(a) of this rule.

2257 ~~(d)~~ **(e)** Special caution **shall must** be taken to prevent wheeled and tracked vehicles from compacting the area selected
2258 for placement of the soil absorption system before, during, and after construction of the trenches, especially during wet weather.
2259 Alteration of soil structure by movement of vehicles may be grounds for rejection of the site or the soil absorption system, or both.

2260 ~~(e)~~ **(f)** Subsurface soil absorption systems **shall must** not be constructed during periods of wet weather when the soil is
2261 sufficiently wet at the depth of installation to exceed its plastic limit, as follows:

2262 (1) This applies to soils classified as the following:

2263 (A) Sandy loam.
2264 (B) Silt loam.
2265 (C) Loam.
2266 (D) Clay loam.
2267 (E) Silty clay loam.
2268 (F) Sandy clay.
2269 (G) Silty clay.
2270 (H) Clay.

2271 (2) Sufficient samples **shall must** be evaluated throughout the soil absorption system site, from the soil surface to the
2272 proposed depth of the soil absorption system trench bottoms, to assure that the plastic limit of the soil is not exceeded.

2273 (3) The plastic limit of a soil ~~shall be~~ **is** considered to have been exceeded when the soil can be rolled between the palms
2274 of the hands to produce threads one-eighth ($\frac{1}{8}$) inch in diameter without breaking apart and crumbling.

2275 ~~(f)~~ **(g)** Vegetation at the soil absorption system site that would interfere with the soils evaluation, system layout, or system
2276 construction **shall must** be cut and removed prior to installation without causing compacted soil material.

2277 ~~(g)~~ **(h)** If trees are present within the proposed soil absorption system:

2278 (1) soil absorption trenches may be routed around trees, provided the trenches follow the contour of the site; or
2279 (2) tree stumps and root balls may be removed, provided the resulting excavation will not exceed the permit requirements
2280 for width and depth of the soil absorption trench.

2281 ~~(h)~~ **(i)** Excessive smearing of the usable absorption trench sidewalls or bottom during construction may:

2282 (1) result in irreversible damage to the soil infiltrative surface; and
2283 (2) be grounds for rejection of the site or the on-site sewage system, or both.

2284 ~~(i)~~ **(j)** The ~~A commercial building~~ sewer **shall must** be a minimum of at least four (4) inches in diameter. Four (4) inch
2285 sewers **shall must** be installed with a positive slope of:

2286 (1) not less than four (4) inches in twenty-five (25) feet; and
2287 (2) not more than thirty-six (36) inches in twenty-five (25) feet.

2288 ~~(j)~~ **(k)** A six (6) inch ~~commercial building~~ sewer, if ~~utilized~~ **used**, **shall must** be installed with a positive slope of:

2289 (1) not less than two (2) inches in twenty-five (25) feet; and
2290 (2) not more than thirty-six (36) inches in twenty-five (25) feet.

2291 ~~(k)~~ **(l)** A vertical drop may be installed in a ~~commercial building~~ sewer. Each vertical drop **shall must** have a cleanout
2292 located immediately upslope.

2293 ~~(l)~~ **(m)** Effluent sewers **shall must** meet the following requirements:

2294 (1) Effluent sewers **shall must** be a minimum of four (4) inches in diameter.
2295 (2) Effluent sewer pipe **shall must** have a positive grade of at least two and four-tenths (2.4) inches per one hundred (100)
2296 feet or a grade of two-tenths percent (0.2%).

2297 ~~(m)~~ **(n)** All ~~Sewer and effluent sewer joints~~ **shall must** be sealed according to the manufacturer's recommendations ~~in~~
2298 ~~order~~ to be watertight and to withstand the pressures exerted on them.

2299 ~~(n)~~ **(o)** The absorption trenches of a subsurface trench soil absorption system **shall must** be constructed along the contour.

2300 ~~(o)~~ **(p)** The minimum depth from original grade to the bottom of a trench of a subsurface trench soil absorption system
2301 **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
2302 trench soil absorption system **shall must** not be more than thirty-six (36) inches.

2303 ~~(p)~~ **(q)** All ~~Subsurface trench soil absorption systems~~ **shall must** be designed to ~~utilize~~ **use** trenches with a minimum
2304 width of eighteen (18) inches and a maximum trench width of thirty-six (36) inches.

2305 ~~(q)~~ **(r)** There **shall must** be a minimum separation of seven and one-half ($7\frac{1}{2}$) feet, on center, between soil absorption
2306 system trenches, measured perpendicular to the trenches.

2307 ~~(r)~~ **(s)** No single absorption trench in a subsurface trench soil absorption system **shall may** exceed one hundred (100) feet
2308 in length, except for subsurface trench pressure distribution on-site sewage systems.

2309 ~~(s)~~ (t) Each trench and distribution lateral in a subsurface trench soil absorption system ~~shall~~ **must** be uniformly level
2310 throughout its length and width.

2311 ~~(t)~~ (u) The distal ends of distribution laterals and trenches ~~shall~~ **must** not be tied together.

2312 ~~(u)~~ (v) The distal end of each distribution lateral ~~shall~~ **must** be capped, with the cap joint sealed according to the
2313 manufacturer's recommendations ~~in order~~ to be watertight and ~~to~~-withstand the pressures exerted on it.

2314 ~~(v)~~ (w) Perforated pipe distribution laterals in the absorption trench of a subsurface trench soil absorption system ~~shall~~
2315 **must** be completely surrounded by aggregate that meets the specifications in section 76 of this rule. There ~~shall~~ **must** be at least
2316 six (6) inches of aggregate below the pipe.

2317 ~~(w)~~ (x) The minimum depth of aggregate above the distribution laterals ~~shall~~ **must** be:

2318 (1) two (2) inches throughout the entire length and width of trenches having a depth of twelve (12) inches or greater; or

2319 (2) two (2) inches above the distribution lateral for the entire length of trenches having a depth of ten (10) inches to
2320 twelve (12) inches.

2321 ~~(x)~~ (y) The aggregate used in a subsurface trench soil absorption system ~~shall~~ **must** be covered with a geotextile fabric
2322 barrier in ~~such a manner as to prevent~~ **way that prevents** the aggregate from becoming clogged with the earth fill. The barrier
2323 material ~~shall~~ **must**:

2324 (1) meet the minimum requirements in section 77 of this rule;

2325 (2) be placed on the aggregate to prevent soil particle movement into the aggregate; and

2326 (3) cover the aggregate from side to side and from end to end.

2327 ~~(y)~~ (z) ~~A minimum of~~ **At least** twelve (12) inches of cover ~~shall~~ **must** be provided over the aggregate in the trenches, and
2328 any fill required to provide cover ~~shall~~ **must** be crowned over the entire soil absorption system to promote surface runoff.

2329 ~~(z)~~ (aa) Tire chips, if used for aggregate, will have protruding wires and ~~shall~~ **must** be removed from the ground surface
2330 during site cleanup.

2331
2332 *(Indiana Department of Health; 410 IAC 6-10.1-82; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; errata filed Dec*
2333 *12, 2012, 2:16 p.m.: 20121226-IR-410120157ACA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*
2334 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

2335
2336 SECTION 80. 410 IAC 6-10.1-87 IS AMENDED TO READ AS FOLLOWS:

2337
2338 410 IAC 6-10.1-87 Elevated sand mound on-site sewage systems: design of the aggregate bed

2339 Authority: IC 16-19-3-4

2340 Affected: IC 16-19-3-4

2341
2342 Sec. 87. (a) The size of the aggregate bed ~~shall~~ **must** be determined from the following:

2343 (1) The minimum area of the aggregate bed ~~shall~~ **must** be calculated as:

$$\text{minimum aggregate bed area (ft}^2\text{) (AB)} = \frac{\text{DDF Design Daily Flow (in gpd)}}{1.2 \text{ gpd/ft}^2}$$

2344 (2) The dimensions of the aggregate bed ~~shall~~ **must** be as long and narrow as the site allows, while not exceeding the
2345 maximum bed width calculated in subdivision (3)(A).

2346 (3) The maximum width of the aggregate bed ~~shall~~ **must** meet the following requirements:

2347 (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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2351
2352 where 0.83 is a conversion factor (ft²/gpd)

SLR is soil loading rate, and

where: DDF is design daily flow, and

n is determined by the DDF in this chart

This number may be rounded down to the nearest whole number.

| DDF (gpd) | n |
|-----------|---|
| ≤ 1500 | 3 |
| 1501-3000 | 4 |
| 3001-4000 | 5 |

2353
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- (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 |

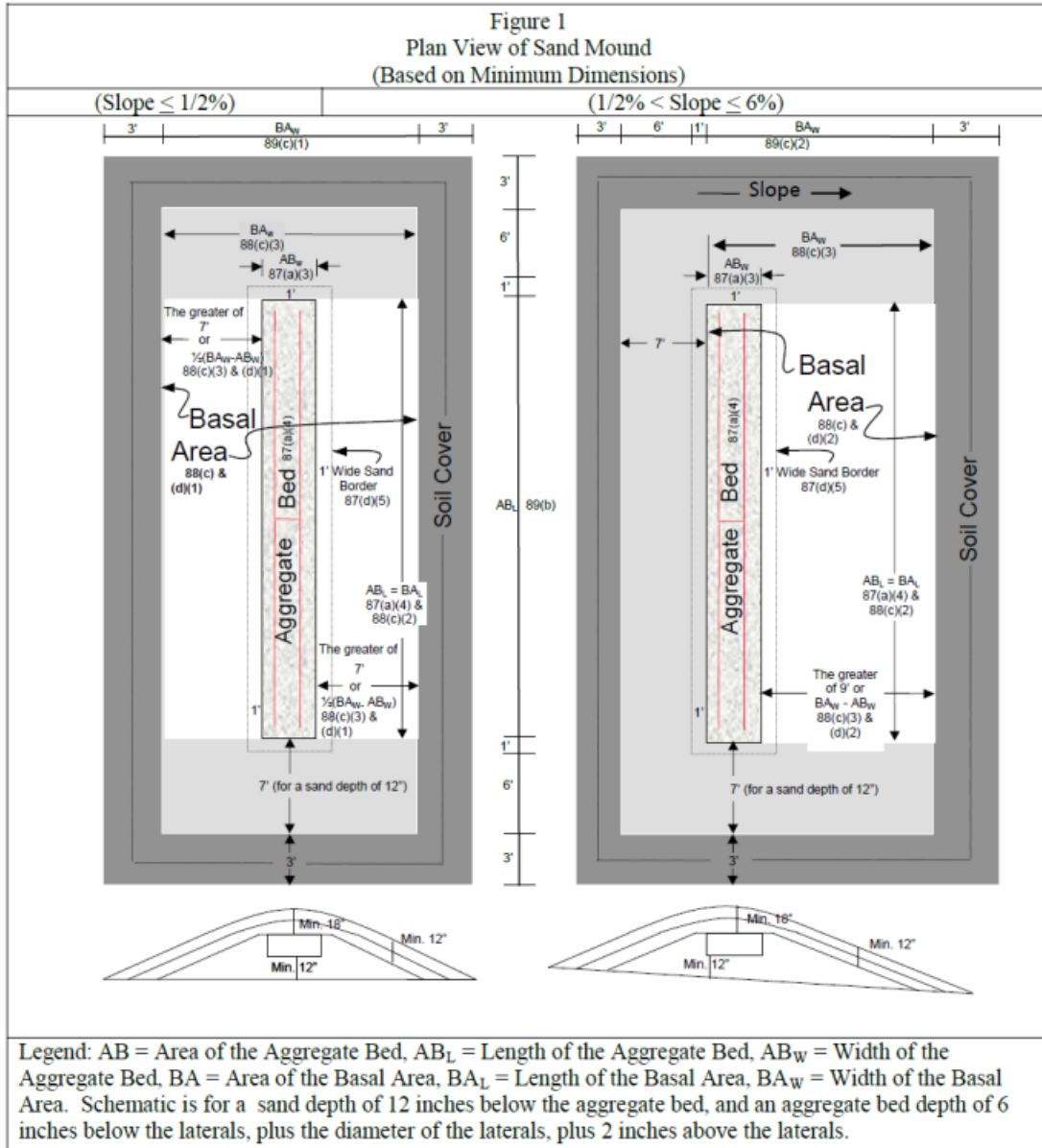
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- (iii) This number may be rounded down to the nearest whole number.
- (B) For on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, the width of the aggregate bed ~~shall~~ **must** be at least four (4) feet and not 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:

$$\text{Minimum length of the aggregate bed (AB}_L\text{)} = \frac{\text{Minimum aggregate bed area (AB)}}{\text{Maximum aggregate bed width (AB}_w\text{)}}$$

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- (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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(Indiana Department of Health; 410 IAC 6-10.1-87; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; errata filed Apr 23, 2013, 11:44 a.m.: 20130508-IR-410130165ACA; 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 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

Authority: IC 16-19-3-4

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).

(b) Numerical dimensions provided in this section for basal area and elevated sand mound size are rounded up to the nearest whole number.

(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:

$$\text{Minimum basal area (ft}^2\text{)(BA)} = \frac{\text{Design Daily Flow (in gpd)}}{\text{soil loading rate (SLR)}}$$

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

| 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)

2432 SECTION 82. 410 IAC 6-10.1-89 IS AMENDED TO READ AS FOLLOWS:

2433
2434 410 IAC 6-10.1-89 Elevated sand mound on-site sewage systems: dimensions of the elevated sand mound
2435 Authority: IC 16-19-3-4
2436 Affected: IC 16-19-3-4
2437

2438 Sec. 89. (a) Numerical dimensions for the soil material cover from the edge of the basal area to the edge of the elevated sand
2439 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
2440 slope (a slope that forms a plane). Elevated sand mounds sited on complex slopes are more difficult to design and construct on
2441 contour.

- 2442 (b) The minimum length of an elevated sand mound ~~shall~~ **must** be the sum of the following:
- 2443 (1) The length of the aggregate bed (AB_L).
 - 2444 (2) Plus fourteen (14) feet, representing the two **(2)** sideslopes of INDOT Specification 23 sand at both ends of the
2445 aggregate bed (including the one (1) foot level borders). A minimum endslope grade of three-to-one (3:1) ~~shall~~ **must** be
2446 maintained on the INDOT Specification 23 sand.
 - 2447 (3) Plus six (6) feet, representing the soil material cover at both ends of the aggregate bed. A minimum endslope grade
2448 of three-to-one (3:1) ~~shall~~ **must** be maintained on the soil cover material.
- 2449 (c) The minimum width of the elevated sand mound ~~shall~~ **must** be determined from the following:
- 2450 (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
2451 following:
 - 2452 (A) The basal area width (BA_W) as determined in section 88(c)(3) of this rule.
 - 2453 (B) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed.
 - 2454 (2) On sites with slopes greater than one-half percent (~~1/2~~2%) and less than or equal to six percent (6%), the minimum
2455 width of an elevated sand mound ~~shall~~ **must** be the sum of the following:
 - 2456 (A) The ~~basal area width~~ (BA_W) as determined in section 88(c)(3) of this rule.
 - 2457 (B) Plus seven (7) feet, representing the sideslope of INDOT Specification 23 sand on the upslope side of the
2458 aggregate bed (including the one (1) foot level border), and ~~shall~~ **must** maintain a minimum sideslope grade of
2459 three-to-one (3:1).
 - 2460 (C) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed. A minimum
2461 sideslope grade of three-to-one (3:1) ~~shall~~ **must** be maintained on the soil cover material.

2462
2463 *(Indiana Department of Health; 410 IAC 6-10.1-89; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2464 *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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2466 SECTION 83. 410 IAC 6-10.1-98 IS AMENDED TO READ AS FOLLOWS:

2467
2468 410 IAC 6-10.1-98 Abandonment of an on-site sewage system
2469 Authority: IC 16-19-3-4
2470 Affected: IC 16-19-3-4
2471

2472 Sec. 98. **(a) The department or local health department shall issue a permit and require an inspection for the**
2473 **abandonment of an on-site sewage system in accordance with section 53(a)(9) of this rule.**

2474 ~~(a)~~ **(b)**When the use of an on-site sewage system is discontinued, the following procedure must be followed for all tanks
2475 and electrical service:

- 2476 (1) Electrical power must be disconnected at the source. All controls and panels must be removed.
- 2477 (2) ~~All~~ **A**bove ground electrical lines that will not be used for other purposes must be removed.
- 2478 (3) A licensed **septage management vehicle** ~~septic tank cleaner~~ must pump ~~all the~~ contents from all tanks **and**
2479 **distribution boxes** in the on-site sewage system.
- 2480 (4) The tanks must ~~either be:~~
 - 2481 (A) ~~removed or the~~ **have their** lids crushed into the tanks, and the holes or tanks must be backfilled with debris-
2482 free sand or other granular material, concrete, or soil material that is compacted to prevent settling. (If a sand
2483 mound is being abandoned, sand, aggregate and soil cover from the sand mound may be used for filling the tank
2484 or tanks); ~~or~~
 - 2485 (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 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 20122024 Standard Specifications, Section 904, Aggregates is incorporated by reference as part of this rule. Two (2)

2540 copies of the standard are available for reference in the files of the department. The standard may be obtained at:
2541 ~~<http://www.in.gov/dot/div/contracts/standards/book/sep11/sep.htm>~~<https://www.in.gov/indot/files/2012Master.pdf>
2542 <https://www.in.gov/dot/div/contracts/standards/book/sep23/2024%20Standard%20Specifications.pdf>.

2543 (g) NEMA 250-20082020 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for
2544 reference in the files of the department. The standard may be obtained at

2545 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>~~.

2547 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.

2549 (h) IAPMO Z1000-2019, Prefabricated Septic Tanks, is incorporated by reference as part of this rule. Two (2)
2550 copies of the standard are available for reference in the files of the department. The standard may be obtained at:

2551 https://webstore.ansi.org/SDO/IAPMO?gclid=EAIaIQobChMI-8P-vZLJQIVn8mUCR2xTQxTEAAYASAAEgJ9K_D_BwE.

2553 (i) Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Surveys, Second
2554 Edition, USDA, 1999 is incorporated by reference. Document may be obtained at:

2555 <https://nrspad.sc.egov.usda.gov/DistributionCenter/pdf.aspx?productID=703>.

2556
2557 *(Indiana Department of Health; 410 IAC 6-10.1-99; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*
2558 *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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