

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

10  
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 100-year flood elevations.

15  
16 *(Indiana Department of Health; 410 IAC 6-10.1-5.1)*

17  
18 SECTION 2. 410 IAC 6-10.1-5.2 IS ADDED TO READ AS FOLLOWS:

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

21 Authority: IC 16-19-3-4

22 Affected: IC 16-19-3-4

23  
24 Sec. 5.2. "Best judgment" means the process by which the department reviews the site and soil evaluation report and site  
25 characteristics in a situation where a commercial on-site sewage system has failed, and a replacement soil absorption  
26 system cannot meet the requirements of this rule for new construction. The department uses their best judgment to  
27 determine the optimal approach to soil absorption system replacement that comes as close to meeting the requirements of  
28 this rule as possible.

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

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

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

35 Authority: IC 16-19-3-4

36 Affected: IC 16-19-3-4

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

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

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

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

46 Authority: IC 16-19-3-4

47 Affected: IC 16-19-3-4

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

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

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

70  
71 *(Indiana Department of Health; 410 IAC 6-10.1-8; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
72 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
73

74 SECTION 5. 410 IAC 6-10.1-8.1 IS ADDED TO READ AS FOLLOWS:

75  
76 **410 IAC 6-10.1-8.1 “Commercial on-site sewage system expansion” defined**

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

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

79  
80 **Sec. 8.1. “Commercial on-site sewage system expansion” means the addition of any system component(s) or an**  
81 **increase in the size of a soil absorption system intended to expand the system’s capacity to treat an increased design daily**  
82 **flow or to prevent, stop, or abate a commercial on-site sewage system failure.**

83  
84 *(Indiana Department of Health; 410 IAC 6-10.1-8.1)*

85  
86 SECTION 6. 410 IAC 6-10.1-9 IS AMENDED TO READ AS FOLLOWS:

87  
88 **410 IAC 6-10.1-9 "Commercial on-site sewage system failure" defined**

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

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

91  
92 **Sec. 9. "Commercial on-site sewage system failure" means a commercial on-site sewage system that exhibits one (1) or**  
93 **more of the following:**

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

105  
106 A failed commercial on-site sewage system is a **public and environmental** health hazard.

107  
108 *(Indiana Department of Health; 410 IAC 6-10.1-9; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*

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

110  
111 SECTION 7. 410 IAC 6-10.1-9.1 IS ADDED TO READ AS FOLLOWS:

112  
113 **410 IAC 6-10.1-9.1 "Commercial on-site sewage system malfunction" or "malfunction" defined**

114 Authority: IC 16-19-3-4

115 Affected: IC 16-19-3-4

116  
117 Sec. 9.1. "Commercial on-site sewage system malfunction" or "malfunction" means a commercial on-site sewage  
118 system component that is not functioning in accordance with this rule or per manufacturers' requirements. Commercial  
119 on-site sewage system malfunction does not have to meet the definition of commercial on-site sewage system failure, but  
120 there may also be failure. Malfunction may include, but is not limited to, one (1) or more of the following:

121 (1) The backup of sewage into an upstream on-site sewage system component;

122 (2) The liquid level in a septic tank above the invert of the septic tank outlet;

123 (3) An outlet filter that is plugged sufficiently to cause backup in the septic tank;

124 (4) The liquid level in a dosing tank above the level of the pump on float;

125 (5) The liquid level in a treatment unit above that recommended by the manufacturer;

126 (6) The liquid level in a distribution box consistently above the invert of the outlets;

127 (7) A distribution box that does not provide equal distribution;

128 (8) Structural failure of a septic tank, dosing tank, treatment unit, distribution box or other required component;

129 (9) Electrical failure of any electrical component of an on-site sewage system, or

130 (10) Removal of any system component required in the construction or operating permit.

131  
132 *(Indiana Department of Health; 410 IAC 6-10.1-9.1)*

133  
134 SECTION 9. 410 IAC 6-10.1-9.2 IS ADDED TO READ AS FOLLOWS:

135  
136 **410 IAC 6-10.1-9.2 "Commercial on-site sewage system repair" defined**

137 Authority: IC 16-19-3-4

138 Affected: IC 16-19-3-4

139  
140 Sec. 9.2. "Commercial on-site sewage system repair" means any activity undertaken to replace or modify an  
141 existing component(s) of an existing on-site sewage system including any component of the existing soil absorption system,  
142 such as a pipe, a chamber, or a distribution box. Commercial on-site sewage system repair does not include routine  
143 maintenance of the system.

144  
145 *(Indiana Department of Health; 410 IAC 6-10.1-9.2)*

146  
147 SECTION 9. 410 IAC 6-10.1-9.3 IS ADDED TO READ AS FOLLOWS:

148  
149 **410 IAC 6-10.1-9.3 "Commercial on-site sewage system replacement" defined**

150 Authority: IC 16-19-3-4

151 Affected: IC 16-19-3-4

152  
153 Sec. 9.3. "Commercial on-site sewage system replacement" means any activity undertaken to replace a soil  
154 absorption system. Commercial on-site sewage system replacement may also include the addition, the replacement, or  
155 the repair of any other system component(s).

156  
157 *(Indiana Department of Health; 410 IAC 6-10.1-9.3)*

158  
159 SECTION 10. 410 IAC 6-10.1-9.4 IS ADDED TO READ AS FOLLOWS:

160  
161 **410 IAC 6-8.3-9.4 "Construction, New" defined**

162 Authority: IC 16-19-3-4

163 Affected: IC 16-19-3-4

164  
165 Sec. 9.4. "Construction, New" means either:

- 166 (1) construction of a new commercial facility where there previously was no commercial facility; or  
167 (2) replacing, rebuilding, or remodeling an existing commercial facility when the design daily flow or the waste  
168 strength of the new structure(s) exceeds what was previously at the site.

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

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

172  
173 SECTION 11. 410 IAC 10.1-9.5 IS ADDED TO READ AS FOLLOWS:

174  
175 **410 IAC 6-10.1-9.5 "Construction, Repair/Replacement" defined**

176 Authority: IC 16-19-3-4

177 Affected: IC 16-19-3-4

178  
179 Sec. 9.5. "Construction, Repair/Replacement" means either:

- 180 (1) repair or replacement of a commercial on-site sewage system for a commercial facility; or  
181 (2) rebuilding or remodeling of an existing commercial facility without an increase in the design daily flow of the  
182 project.  
183

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

186  
187 *(Indiana Department of Health; 410 IAC 6-10.1-9.5)*

188  
189 SECTION 12. 410 IAC 6-10.1-13.1 IS ADDED TO READ AS FOLLOWS:

190  
191 **410 IAC 6-8.3-13.1 "Designer" defined**

192 Authority: IC 16-19-3-4

193 Affected: IC 16-19-3-4

194  
195 Sec. 13.1. "Designer" means an individual who designs and submits detailed on-site sewage system construction  
196 plans to the department or the local health department for review as part of a construction permit application.

197  
198 *(Indiana Department of Health; 410 IAC 6-10.1-13.1)*

199  
200 SECTION 13. 410 IAC 6-10.1-15 IS AMENDED TO READ AS FOLLOWS:

201  
202 410 IAC 6-10.1-15 "Drainageway" defined

203 Authority: IC 16-19-3-4

204 Affected: IC 16-19-3-4

205  
206 Sec. 15. "Drainageway" means the channel portion of the landscape in which surface water or rainwater runoff ~~gathers~~  
207 ~~flows intermittently to flow~~ flows to a lower elevation.

208  
209 *(Indiana Department of Health; 410 IAC 6-10.1-15; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
210 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

211  
212 SECTION 14. 410 IAC 6-10.1-15.1 IS ADDED TO READ AS FOLLOWS:

213  
214 **410 IAC 6-10.1-15.1 "Drywell" defined**

215 Authority: IC 16-19-3-4

216 Affected: IC 16-19-3-4

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**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 shall be in place until the completion of the project.**

*(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 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 per Soil Taxonomy [USDA,1999]).**

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

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

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

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

273

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

276

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

279

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

281

282 410 IAC 6-10.1-19 "Health officer" defined

283 Authority: IC 16-19-3-4

284 Affected: IC 16-19-3-4

285

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

287

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

290

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

292

293 410 IAC 6-10.1-20 "High strength waste" defined

294 Authority: IC 16-19-3-4

295 Affected: IC 16-19-3-4

296

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

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

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

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

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

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

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

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

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

308

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

311

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

313

314 **410 IAC 6-10.1-20.1 "IAPMO" defined**

315 Authority: IC 16-19-3-4

316 Affected: IC 16-19-3-4

317

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

319

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

321

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

323

324 **410 IAC 6-10.1-21.1 "Inspector" defined**

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

327  
328 Sec. 21.1. "Inspector" means any individual who performs inspections of an existing on-site sewage system(s) in  
329 compliance with section 54.1 for determination of system compliance with this rule.

330  
331 *(Indiana Department of Health; 410 IAC 6-10.1-21.1)*

332  
333 SECTION 23. 410 IAC 6-10.1-21.2 IS ADDED TO READ AS FOLLOWS:

334  
335 **410 IAC 6-10.1-21.2 "Installer" defined**

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

338  
339 Sec. 21.2. "Installer" means any individual who performs any work in furtherance of construction, installation,  
340 replacement, alteration, repair, expansion, or abandonment of any commercial on-site sewage system that is subject to the  
341 provisions of this rule.

342  
343 *(Department of Health; 410 IAC 6-10.1-21.2)*

344  
345 SECTION 24. 410 IAC 6-10.1-22 IS AMENDED TO READ AS FOLLOWS:

346  
347 410 IAC 6-10.1-22 "Interceptor drain" defined

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

350  
351 Sec. 22. "Interceptor drain" means a subsurface drainage system constructed only on the upslope side or sides of a soil  
352 absorption system for the purpose of **lowering a seasonal high water table and** diverting subsurface water around the soil  
353 absorption system site.

354  
355 *(Indiana Department of Health; 410 IAC 6-10.1-22; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed*  
356 *Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))*

357  
358 SECTION 25. 410 IAC 6-10.1-22.1 IS ADDED TO READ AS FOLLOWS:

359  
360 **410 IAC 6-10.1-22.1 "Involuntary" defined**

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

363  
364 Sec. 22.1. "Involuntary" means a need to modify or improve commercial facility due to factors outside of the  
365 owner's control, such as destruction by wind, fire, flood, or other natural disaster, or due to condemnation of the structure.

366  
367 *(Indiana Department of Health; 410 IAC 6-10.1-22.1)*

368  
369 SECTION 26. 410 IAC 6-10.1-22.2 IS ADDED TO READ AS FOLLOWS:

370  
371 **410 IAC 6-10.1-22.2 "Limiting layer" defined**

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

374  
375 Sec. 22.2. (a) "Limiting layer" means a soil horizon that restricts suitability of a site for a soil absorption system  
376 or restricts the depth of installation of a soil absorption system. A limiting layer can be a restrictive soil horizon or a poor  
377 filter.

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

379 (1) with a soil loading rate less than twenty-five hundredths (0.25) gpd/ft<sup>2</sup> as assigned in Table V or Table VI of  
380 this rule; or

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

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

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

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

389 (1) a soil loading rate greater than seventy-five hundredths (0.75) gpd/ft<sup>2</sup>, as assigned in Table V or Table VI of  
390 this rule, for a gravity fed or flood dosed subsurface trench on-site sewage systems;

391 (2) a soil loading rate greater than one and twenty-hundredths (1.20) gpd/ft<sup>2</sup>, as assigned in Table V or Table VI  
392 of this rule, for any type of on-site sewage system;

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

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

397  
398 *(Indiana Department of Health; 410 IAC 6-10.1-22.2)*

399  
400 SECTION 27. 410 IAC 6-10.1-27 IS AMENDED TO READ AS FOLLOWS:

401 410 IAC 6-10.1-27 "Operating permit" defined

402 Authority: IC 16-19-3-4

403 Affected: IC 16-19-3-4

404  
405  
406 Sec. 27. "Operating permit" means written approval by the department or local health department for the continued use  
407 and maintenance of a commercial on-site sewage system.

408  
409 *(Indiana Department of Health; 410 IAC 6-10.1-27; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
410 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

411  
412 SECTION 28. 410 IAC 6-10.1-29 IS AMENDED TO READ AS FOLLOWS:

413 410 IAC 6-10.1-29 "Perimeter drain" defined

414 Authority: IC 16-19-3-4

415 Affected: IC 16-19-3-4

416  
417  
418 Sec. 29. "Perimeter drain" means a subsurface drainage system that completely surrounds a soil absorption system for  
419 the purpose of lowering a seasonal high water table ~~or~~ and preventing movement of subsurface water into a soil absorption system  
420 site.

421  
422 *(Indiana Department of Health; 410 IAC 6-10.1-29; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
423 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

424  
425 SECTION 29. 410 IAC 6-10.1-30.1 IS ADDED TO READ AS FOLLOWS:

426  
427 **410 IAC 6-10.1-30.1 "Project narrative"**

428 Authority: IC 16-19-3-4

429 Affected: IC 16-19-3-4

430  
431 **Sec. 30.1. "Project narrative" a description including but not limited to the type of project, operational details,**  
432 **and purpose of the project (new, expansion, remodel, replacement) for use in determination of estimated sewage flows on**

433 **peak days and anticipated wastewater characteristics.**

434  
435 *(Indiana Department of Health; 410 IAC 6-10.1-30.1)*

436  
437 SECTION 30. 410 IAC 6-10.1-32 IS REPEALED:

438  
439 ~~410 IAC 6-10.1-32 "Regulatory flood elevation" or "RFE" defined~~  
440 ~~Authority: IC 16-19-3-4~~  
441 ~~Affected: IC 16-19-3-4~~

442  
443 ~~Sec. 32. "Regulatory flood elevation" or "RFE" means the elevation of surface water resulting from a flood for which~~  
444 ~~there is a one percent (1%) probability of equaling or exceeding that level in any given year as calculated by a method and~~  
445 ~~procedure that is approved by the Indiana natural resources commission. The regulatory flood elevation is also referred to as the~~  
446 ~~base flood elevation. (*Indiana Department of Health; 410 IAC 6-10.1-32; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-*~~  
447 ~~*410120157FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA*)~~

448  
449 SECTION 31. 410 IAC 6-10.1-32.1 IS ADDED TO READ AS FOLLOWS:

450  
451 **410 IAC 6-8.3-32.1 "Recreational vehicle"**  
452 **Authority: IC 16-19-3-4**  
453 **Affected: IC 16-19-3-4**

454  
455 **Sec. 32.1. "Recreational vehicle" means a travel trailer, park model, collapsible trailer, truck-mounted camper,**  
456 **or motor home.**

457  
458 *(Indiana Department of Health; 410 IAC 6-10.1-32.1)*

459  
460 SECTION 32. 410 IAC 6-10.1-32.2 IS ADDED TO READ AS FOLLOWS:

461  
462 **410 IAC 6-10.1-32.2 "Responsible charge of installers" defined**  
463 **Authority: IC 16-19-3-4**  
464 **Affected: IC 16-19-3-4**

465  
466 **Sec. 32.2. "Responsible charge of installers" means the direct control and personal supervision by a registered**  
467 **installer of the work being performed at a job site for the installation of an on-site sewage system including, but not limited**  
468 **to site preparation work, tilling, construction, finish grading, and soil stabilization for all components of the on-site sewage**  
469 **system being installed.**

470  
471 *(Indiana Department of Health; 410 IAC 6-10.1-32.2)*

472  
473 SECTION 33. 410 IAC 6-10.1-36 IS AMENDED TO READ AS FOLLOWS:

474  
475 **410 IAC 6-10.1-36 "Segment drain" defined**  
476 **Authority: IC 16-19-3-4**  
477 **Affected: IC 16-19-3-4**

478  
479 **Sec. 36. "Segment drain" means a subsurface drainage system constructed between two (2) soil absorption fields in the**  
480 **same on-site sewage system for the purpose of lowering a seasonal high water table and intercepting and diverting subsurface**  
481 **water away from the downslope soil absorption field.**

482  
483 *(Indiana Department of Health; 410 IAC 6-10.1-36; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
484 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

485  
486 SECTION 34. 410 IAC 6-10.1-38.1 IS ADDED TO READ AS FOLLOWS:

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**410 IAC 6-10.1-38.1 “Sewage Holding tank” defined**

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

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

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

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

SECTION 35. 410 IAC 6-10.1-40 IS AMENDED TO READ AS FOLLOWS:

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

*(Indiana Department of Health; 410 IAC 6-10.1-40; 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 36. 410 IAC 6-10.1-40.1 IS ADDED TO READ AS FOLLOWS:

**410 IAC 6-10.1-40.1 “Soil boring”**

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

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

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

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

SECTION 37. 410 IAC 6-10.1-41 IS AMENDED TO READ AS FOLLOWS:

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

- (1) color;
- (2) structure, including grade, shape, and size;
- (3) texture;
- (4) consistence;
- (5) kinds and numbers of organisms present; and
- (6) ~~degree~~ of acidity or alkalinity.

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

541  
542 SECTION 38. 410 IAC 6-10.1-42 IS AMENDED TO READ AS FOLLOWS:  
543

544 410 IAC 6-10.1-42 "Soil loading rate" defined  
545 Authority: IC 16-19-3-4  
546 Affected: IC 16-19-3-4  
547

548 Sec. 42. "Soil loading rate" means the ~~allowable~~ rate of application of septic tank effluent to the soil. It is expressed in  
549 gallons per day per square foot.  
550

551 *(Indiana Department of Health; 410 IAC 6-10.1-42; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
552 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
553

554 SECTION 39. 410 IAC 6-10.1-42.1 IS ADDED TO READ AS FOLLOWS:  
555

556 **410 IAC 6-10.1-42.1 "Soil pit" defined**  
557 **Authority: IC 16-19-3-4**  
558 **Affected: IC 16-19-3-4**  
559

560 **Sec. 42.1. "Soil pit" means an excavation that is sufficiently wide, deep, and long enough for the soil scientist to**  
561 **enter the soil pit safely, according to the federal Occupational Safety and Health Administration (OSHA) and any other**  
562 **federal, state, or local requirements, to directly observe, characterize, and describe the soil profile.**  
563

564 *(Indiana Department of Health; 410 IAC 6-10.1-42.1)*  
565

566 SECTION 40. 410 IAC 6-10.1-43 IS AMENDED TO READ AS FOLLOWS:  
567

568 410 IAC 6-10.1-43 "Soil profile analysis" defined  
569 Authority: IC 16-19-3-4  
570 Affected: IC 16-19-3-4  
571

572 Sec. 43. "Soil profile analysis" means the observation and evaluation of the physical, **chemical, and biological**  
573 characteristics of the soil horizons or layers to:

- 574 (1) a depth of at least five (5) feet; or  
575 (2) if shallower, a layer that cannot be readily penetrated.  
576

577 *(Indiana Department of Health; 410 IAC 6-10.1-43; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
578 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
579

580 SECTION 41. 410 IAC 6-10.1-46 IS AMENDED TO READ AS FOLLOWS:  
581

582 410 IAC 6-10.1-46 "Subsurface drainage system" defined  
583 Authority: IC 16-19-3-4  
584 Affected: IC 16-19-3-4  
585

586 Sec. 46. "Subsurface drainage system" means any pipe with or without a layer of gravel, stone, or ~~course~~ sand, placed  
587 below the surface of the ground and designed or constructed in such a manner as to:

- 588 (1) effectively lower a seasonal high water table; ~~and or~~  
589 (2) prevent movement of subsurface water into a soil absorption system site.

590 Interceptor drains, perimeter drains, and segment drains are types of subsurface drainage systems.  
591

592 *(Indiana Department of Health; 410 IAC 6-10.1-46; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
593 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
594

595 SECTION 42. 410 IAC 6-10.1-47 IS AMENDED TO READ AS FOLLOWS:

596  
597 410 IAC 6-10.1-47 "Technology new to Indiana" or "TNI" defined  
598 Authority: IC 16-19-3-4  
599 Affected: IC 16-19-3-4  
600

601 Sec. 47. "Technology new to Indiana" or "TNI" means on-site sewage treatment or disposal methods, processes, or  
602 equipment not described in this rule that have been approved by the department in accordance with section 49(h) of this rule IC  
603 **16-19-3-27.5**.

604  
605 *(Indiana Department of Health; 410 IAC 6-10.1-47; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
606 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
607

608 SECTION 43. 410 IAC 6-10.1-47.1 IS ADDED TO READ AS FOLLOWS:

609  
610 **410 IAC 6-10.1-47.1 "Temporary Benchmark" defined**  
611 Authority: IC 16-19-3-4  
612 Affected: IC 16-19-3-4  
613

614 Sec. 47.1. "Temporary Benchmark" means any object whose actual elevation, or an arbitrarily assumed elevation  
615 of said object, is used as a point of reference until completion of the project.

616  
617 *(Indiana Department of Health; 410 IAC 6-10.1-47.1)*  
618

619 SECTION 44. 410 IAC 6-10.1-47.2 IS ADDED TO READ AS FOLLOWS:

620  
621 **410 IAC 6-10.1-47.2- "Upgraded Piping" defined**  
622 Authority: IC 16-19-3-4  
623 Affected: IC 16-19-3-4  
624

625 Sec. 47.2. "Upgraded Piping" means:

- 626 (1) Waterworks grade ductile iron pipe with tyton or mechanical joints; or  
627 (2) PVC pressure sewer pipe with an SDR rating of twenty-six (26) or less with compression gasket joints; or  
628 (3) Plastic pipe in compliance with Rule 327 IAC 8-3.2-8(a)(5).

629  
630 *(Indiana Department of Health; 410 IAC 6-10.1-47.2)*  
631

632 SECTION 45. 410 IAC 6-10.1-47.3 IS ADDED TO READ AS FOLLOWS:

633  
634 **410 IAC 6-10.1-47.3 "Voluntary" defined**  
635 Authority: IC 16-19-3-4  
636 Affected: IC 16-19-3-4  
637

638 Sec. 47.3. "Voluntary" means an owner's intentional or deliberate action to modify or improve a commercial  
639 facility.

640  
641 *(Indiana Department of Health; 410 IAC 6-10.1-47.3)*  
642

643 SECTION 46. 410 IAC 6-10.1-47.4 IS ADDED TO READ AS FOLLOWS:

644  
645 **410 IAC 6-10.1-47.4 "Watertight" defined**  
646 Authority: IC 16-19-3-4  
647 Affected: IC 16-19-3-4  
648

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

655  
656 *(Indiana Department of Health; 410 IAC 6-10.1-47.4)*

657 SECTION 47. 410 IAC 6-10.1-48 IS AMENDED TO READ AS FOLLOWS:

658  
659 410 IAC 6-10.1-48 Administrative authority

660           Authority: IC 16-19-3-4

661           Affected: IC 16-19-3-4

662  
663  
664           Sec. 48. (a) The department, its agent, or the health officer or ~~his or her~~ **the health officer’s** agent shall be permitted to  
665 enter upon all properties at the proper time for the following purposes necessary to achieve compliance with this rule:

666           (1) Inspection.

667           (2) Observation.

668           (3) Measurement.

669           (4) Sampling.

670           (5) Testing.

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

677           (1) has designated which on-site sewage system technologies are delegated to the local health department for plan review,  
678 approval, and permit issuance; and

679           (2) has provided design criteria to the local health department for each individual commercial on-site sewage system  
680 project.

681  
682 *(Indiana Department of Health; 410 IAC 6-10.1-48; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
683 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

684  
685 SECTION 48. 410 IAC 6-10.1-49 IS AMENDED TO READ AS FOLLOWS:

686  
687 410 IAC 6-10.1-49 General sewage disposal requirements

688           Authority: IC 16-19-3-4

689           Affected: IC 16-19-3-4

690  
691           Sec. 49. (a) No person shall throw, run, drain, seep, or otherwise dispose into any of the surface waters or ground waters  
692 of this state, or cause, permit, or suffer to be thrown, run, drained, allowed to seep, or otherwise disposed into ~~such~~ **those** waters,  
693 ~~any~~ organic or inorganic matter from a commercial facility or commercial on-site sewage system that would cause or contribute  
694 to a health hazard or water pollution.

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

700  
701           ~~(b)~~ (c) The:

702           (1) design;

- 703 (2) construction;
- 704 (3) installation;
- 705 (4) location;
- 706 (5) maintenance; and
- 707 (6) operation;

708 of commercial on-site sewage systems shall comply with the provisions of this rule.

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

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

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

719 ~~(e)~~ **(f)** A cesspool or a drywell, with or without a septic tank, is not a suitable means of commercial sewage disposal.  
720 A temporary sewage holding tank is an alternative method of sewage disposal subject to the written approval of the  
721 department. A temporary sewage holding tank shall not be used as a primary means of commercial sewage disposal except:

- 722 **(1) where necessary to prevent continued discharge of sewage from a failed existing commercial on-site sewage system;**
- 723 **(2) when soil conditions exist that preclude the prompt construction of a soil absorption system on a site that has already**  
724 **received a construction permit; or**
- 725 **(3) where the holding tank is operated by a conservancy district, sewer district, private utility, or municipality as a part**  
726 **of its sewage disposal plan or for not more than two (2) years while connection to sanitary sewer is being secured. This**  
727 **two (2) year time frame may be extended upon documentation of satisfactory operation of the holding tank.**

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

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

- 734 (1) roof drains;
- 735 (2) foundation drains;
- 736 (3) swimming pool main drains;
- 737 (4) hot tub drains; or
- 738 (5) area drains.

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

741 ~~(h)~~ **(i)** In order to encourage development of new or more efficient treatment or disposal processes, the department may  
742 issue construction permits for experimental and TNI commercial on-site sewage systems. Construction permits may be issued for  
743 installations, treatment, or disposal equipment, processes, or techniques for which extensive experience or records of use have not  
744 been developed in Indiana. However, the applicant must submit evidence of sufficient clarity and conclusiveness to convince the  
745 department that the proposal has a reasonable and substantial probability of satisfactory operation without causing a health hazard,  
746 nuisance, surface water pollution, or ground water pollution. The department may also require the applicant to satisfactorily  
747 document how and by whom the experimental facilities and any other portions of the commercial on-site sewage system, which  
748 could be damaged due to a failure of the experimental installation, are to be replaced if it becomes necessary.

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

- 751 **(1) The system is inspected as described in section 54.1 and found to consist minimally of an on-site sewage system**  
752 **as described in this rule that is not in failure and is not malfunctioning;**
- 753 **(2) Either:**
  - 754 **(A) the original system installation was permitted through the department and/or the local health**  
755 **department, and the permit file contains sufficient information to verify system location, system design,**  
756 **and system sizing are compliant with the rule in place at the time of the system installation; or**

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

760 (3) The existing system is appropriately sized for the structure to be served.

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

764 (B) If the connection or reconnection is due to voluntary events, the system being connected to shall meet  
765 the requirements of this rule; and

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

768  
769 *(Indiana Department of Health; 410 IAC 6-10.1-49; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*  
770 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*  
771 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

772  
773 SECTION 49. 410 IAC 6-10.1-49.1 IS ADDED TO READ AS FOLLOWS:

774  
775 **410 IAC 6-10.1-49.1 Professional standards for on-site sewage system installers**

776 Authority: IC 16-19-3-4

777 Affected: IC 16-19-3-4

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

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

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

783 (2) If the local health department requires competency testing,

784 (A) Passing an examination offered by the department or the local health department; or

785 (B) Passing an examination offered by another entity approved by the department or the local health  
786 department; or

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

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

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

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

794  
795 **(Indiana Department of Health; 410 IAC 6-10.1-49.1)**

796  
797 SECTION 50. 410 IAC 6-10.1-50 IS AMENDED TO READ AS FOLLOWS:

798  
799 **410 IAC 6-10.1-50 Construction permit requirements**

800 Authority: IC 16-19-3-4

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

802  
803 Sec. 50. (a) Except as allowed by subsection (c), or section 48(b) of this rule, for ~~any~~ a commercial facility that will not  
804 be connected to a sanitary sewerage system, the owner or agent of the owner shall obtain a written construction permit, signed by  
805 the commissioner or his or her duly authorized representative, for construction of a commercial on-site sewage system prior to  
806 the:

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

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

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

810 (4) **installation of any component of an on-site sewage system or the addition to, alteration of, expansion of,**

811 replacement of, or repair of an existing commercial on-site sewage system;  
 812 (5) installation of an on-site sewage system for an existing commercial facility that did not previously have an on-site  
 813 sewage system as defined in section 8 of this rule;  
 814 (6) expansion of a commercial or regulated facility that may increase the design daily flow;  
 815 (7) change of use of a commercial or regulated facility;  
 816 (8) change in operations that would increase the design daily flow; or  
 817 (9) change of operations that would result in the increase of the BOD5, TSS, or FOGs of the sewage.  
 818 (b) Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of a commercial  
 819 on-site sewage system, provided that the permit required by local ordinance is:  
 820 (1) issued only after permit issuance by the department (except as permitted in section 48(b) of this rule or subsection  
 821 (c) of this rule); and  
 822 (2) is not in conflict with the permit issued by the department.  
 823 (c) Construction permits shall not be required for the following:  
 824 (1) Repair or replacement of commercial on-site sewage system equipment with new units of similar design and capacity,  
 825 none of which will cause a health hazard or adversely affect ground water, facility operation, hydraulics, physiochemical  
 826 treatment, biological treatment, solids removal, or the ultimate means of liquid disposal. This section shall not be  
 827 construed as allowing the construction of replacement soil absorption fields or portions thereof without a valid  
 828 construction permit issued in accordance with this rule.  
 829 (2) Commercial on-site sewage systems for which a construction permit has been issued under 327 IAC 3, and which  
 830 serve two (2) or more premises, and which are owned, operated, or maintained by an incorporated city or town, a  
 831 conservancy district established under IC 14-33, or a regional sewer district established under IC 13-26. This section  
 832 shall not be construed as an exemption from the requirement of subsection (a) for commercial on-site sewage systems  
 833 located on the premises of and serving only schools or municipal facilities.

834  
 835 *(Indiana Department of Health; 410 IAC 6-10.1-50; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
 836 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
 837

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

839  
 840 410 IAC 6-10.1-51 Application for construction permit

841 Authority: IC 16-19-3-4

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

843  
 844 Sec. 51. (a) **Prior to the issuance of a construction permit, an** application for a ~~permit to construction permit a~~  
 845 ~~commercial on-site sewage system shall be made to the department on forms provided by the department. Application for a~~  
 846 ~~construction permit shall be made at least ninety (90) days prior to the date construction of the commercial on-site sewage system~~  
 847 ~~is to commence. An A complete~~ application shall **contain, or include as attachments, be considered complete only when the**  
 848 **form is completed in its entirety, including all supplemental information required or requested by the department. Unless waived**  
 849 **by the department an application for permit shall include the following:**

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

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

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

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

857 (D) **The inclusion of pumps, garbage grinders, water softeners, self-cleaning toilets, or other water using**  
 858 **appliances that affect the waste strength characteristics or volume from the commercial facility in the**  
 859 **commercial plumbing.**

860 (3) (2) **One (1) set of detailed construction plans and specifications certified and sealed by a professional engineer or**  
 861 **architect currently registered in Indiana, or as provided in IC 25-21.5-5-1-7(b), registered land surveyors may only**  
 862 **certify and seal plans for gravity sewers, storm sewers, and tile drains. said Written plans of the site and**  
 863 **commercial on-site sewage system must be drawn to scale and having have sufficient clarity to verify that the design**  
 864 **of the commercial on-site sewage system shall comply with the provisions of this rule, including, but not limited**

865 ~~to be reproduced to create legible microfilm. As provided in IC 25-21.5-1-7(b), registered land surveyors may only~~  
866 ~~certify and seal plans for gravity sanitary sewers, storm sewers, and tile drains.~~

- 867 (A) The location and type of water supply source to serve the commercial facility.  
868 (B) A detailed list of components and materials to be included in the on-site sewage system.  
869 (C) The location and elevation assigned to the temporary benchmark or the NAVD88 elevation of the site.  
870 (D) The location of all soil borings and pits and the location of the minimum two (2) fixed reference points.  
871 (E) Sufficient elevations to determine and confirm:  
872 (i) the slope of all sewers;  
873 (ii) the total dynamic head for pump sizing;  
874 (iii) the soil absorption field is placed along the contour of the site;  
875 (iv) the maximum installation depth of the soil absorption field;  
876 (v) the depth of subsurface drainage from grade and from the invert of the adjacent trench  
877 bottom elevation; and  
878 (vi) the slope of the subsurface drainage tile throughout the subsurface drain and the outlet.  
879 (F) All applicable separation distances to items listed in Table II of section 61 from any on-site sewage  
880 system component, including any drinking water supply facilities within three hundred (300) feet of the  
881 commercial on-site sewage system.  
882 (G) Site topography, with contours established at intervals of two (2) feet or less.  
883 (H) Landscape features in the general vicinity of the proposed on-site sewage system that would impact  
884 the system layout, installation or function.

885 (4) (3) A plat or legal description of the property map or other documentation showing the location of the property  
886 involved.

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

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

893 (7)(4) For those commercial on-site sewage systems that will include an absorption field, an on-site soils evaluation  
894 report prepared by a soil scientist, detailing his or her evaluation of soils observed in the area of the proposed absorption  
895 field. The on-site soils evaluation report shall include all information required in section 64 of this rule.

896 (8)(5) For those commercial on-site sewage systems that will include a temporary sewage holding tank, documentation  
897 of sufficient clarity and conclusiveness to convince the department that the:

- 898 (A) sewage will be collected from the holding tank and disposed of, in compliance with IC 13-18-12; and  
899 (B) temporary sewage holding tank will be abandoned and a sewer connection will be made to another type of  
900 commercial on-site sewage system, or to a municipal or private utility sewer, or to a regional sewer district or  
901 conservancy district sewer, within two (2) years from the date of permit issuance; and  
902 (CB) the holding tank has at least a three (3) day holding capacity, and will be equipped with an audio-visual  
903 alarm set to activate at two-thirds (2/3) capacity in compliance with IC 16-41-25-9 the ninety five percent  
904 (95%) level.

905 (9)(6) Sewage characteristics and calculations used to estimate sewage flow on the peak day, in gallons, to be disposed  
906 of through each proposed commercial on-site sewage system. If more than one (1) type of facility is to be connected to a  
907 proposed commercial on-site sewage system, sewage characteristics and calculations used to estimate sewage flow, in  
908 gallons, from each facility on its peak day must be submitted. **Information needed includes, but is not limited to:**

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

916 (10)(7) A summary delineating, for each diameter of pipe utilized, the estimated total length of sanitary sewer and sewage  
917 force main to be installed.

918 (11)(8) For commercial facilities generating high strength waste as defined in section 20 of this rule, the plan submittal

919 must include a process to accommodate the additional organic loading.  
920 ~~(12)~~(9) All additional information requested by the department to substantiate that the proposed commercial on-site  
921 sewage system can reasonably be expected to treat and dispose of all sewage received without causing a health hazard,  
922 nuisance, surface water pollution, or ground water pollution.

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

926  
927 *(Indiana Department of Health; 410 IAC 6-10.1-51; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
928 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

929 SECTION 52. 410 IAC 6-10.1-53 IS AMENDED TO READ AS FOLLOWS:

930  
931  
932 410 IAC 6-10.1-53 Construction permit conditions  
933 Authority: IC 16-19-3-4  
934 Affected: IC 16-19-3-4

935  
936 Sec. 53. (a) The department may specify in its construction permits any limitations, terms, or conditions necessary to  
937 provide a functional, easily operated, enduring commercial on-site sewage system in accordance with this rule, or to prevent a  
938 health hazard, nuisance, surface water pollution or ground water pollution. In addition, all commercial on-site sewage system  
939 construction permits shall contain the following requirements, not necessarily verbatim:

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

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

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

- 965 (1) Best judgment of the department shall be based on the following:  
966 (A) Limitations of the site.  
967 (B) Written results of an inspection of the existing on-site sewage system as described in section 54.1 which  
968 identifies the probable reasons for system failure.  
969 (C) Written results of an on-site soils evaluation.  
970 (2) Soil absorption system replacements for a commercial on-site sewage system utilizing best judgment may have  
971 trenches constructed to a maximum depth of forty-eight (48) inches below final grade, if necessary, and if the site  
972 and soil conditions allow.

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

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

976 (d) In the case of a commercial on-site sewage system failure, the department may require an approved aeration  
977 unit, in compliance with section 68(h), for aerobic digestion after the septic tank and prior to the soil absorption field, if  
978 high strength waste is confirmed to be a contributing factor to the failure. The aeration unit manufacturer shall confirm  
979 that the specified unit will reduce the waste strength below that of high strength waste. No sizing reduction for the septic  
980 tank or soil absorption field shall be allowed for the use of an aeration unit in this manner. The aeration unit may not be  
981 required if the commercial facility owner agrees to an appropriate plan approved by the department to reduce the waste  
982 strength below that of high strength waste in another manner.

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

988  
989 *(Indiana Department of Health; 410 IAC 6-10.1-53; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
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991  
992 SECTION 53. 410 IAC 6-10.1-54 IS AMENDED TO READ AS FOLLOWS:

993  
994 410 IAC 6-10.1-54 Operating permits

995 Authority: IC 16-19-3-4

996 Affected: IC 16-19-3-4

997  
998 Sec. 54. (a) The department **or the local health department** may require written operating permits as follows:

999 (1) A written operating permit issued by the department shall be signed by the commissioner or his **or her** duly authorized  
1000 representative.

1001 (2) An operating permit shall be renewed as follows:

1002 (A) At least once every three (3) years for on-site sewage systems having **mechanical** components **in addition**  
1003 **to a septic tank and a soil absorption field. Mechanical components include, but are not limited to, effluent**  
1004 **pumps, floats, control panels, control sensors, blowers, and flush valves, other than a septic tank, requiring**  
1005 ~~scheduled inspection and maintenance.~~

1006 (B) At least once every five (5) years for all ~~gravity fed~~ **other** on-site sewage systems **that consist of only a**  
1007 **septic tank and a soil absorption field with no mechanical components.**

1008 (C) **At least once every two (2) years for a sewage holding tank or sanitary vault privy.**

1009 (b) An operating permit shall identify all components of an on-site sewage system requiring inspection and maintenance.

1010 (c) The records for an operating permit requiring scheduled inspection and maintenance shall contain the following:

1011 (1) The name, address, and telephone number of the service company contracted to perform inspection and maintenance.

1012 (2) A description of the operation and maintenance document or documents used for scheduled inspection and  
1013 maintenance.

1014 (d) The owner shall provide the department with the following:

1015 (1) Written documentation of all scheduled and unscheduled inspection and maintenance within one (1) month of the  
1016 date performed.

1017 (2) A copy of the inspection and maintenance contract.

1018 (e) **Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an**  
1019 **operating permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in**  
1020 **conflict with an operating permit issued by the department.**

1021 ~~(f)~~ (f) The operating permit for a commercial on-site sewage system in violation of subsection (d) may be revoked by the  
1022 department **or the local health department, if the local health department issued the operating permit,** in accordance with  
1023 section 56 of this rule.

1024 ~~(f) Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an operating~~  
1025 ~~permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in conflict with an~~  
1026 ~~operating permit issued by the department.~~

1027 (g) If a service contract is discontinued for any reason, the owner or the service provider shall contact the  
1028 department or local health department and a new service contract for operation and maintenance shall be provided to the  
1029 department or local health department within one (1) month of lapse in contract.  
1030

1031 *(Indiana Department of Health; 410 IAC 6-10.1-54; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
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1033

1034 SECTION 54. 410 IAC 6-10.1-54.1 IS ADDED TO READ AS FOLLOWS:  
1035

1036 **401 IAC 6-10.1-54.1 Requirements for inspection of existing on-site sewage systems**

1037 Authority: IC 16-19-3-4

1038 Affected: IC 16-19-3-4  
1039

1040 Sec. 54.1. (a) When an on-site sewage system is to be inspected for determinations made in section 49(l) for  
1041 connection or reconnection to an existing on-site sewage system, for use of best judgment as described in section 53(c), for  
1042 operating permit renewal as described in section 54(e), for change of use or change of operation applications as described  
1043 in section 50(a), or for other inspections that will be submitted to the department, the requirements of this section shall  
1044 apply.

1045 (b) Prior to inspection of an existing on-site sewage system, the inspector shall obtain a copy of the on-site sewage  
1046 system construction permit and operating permit files, if available, including, but not limited to the permit(s), construction  
1047 plan, final inspection documentation, and any complaint information related to the on-site sewage system being inspected  
1048 from the department and local health department.

1049 (c) The system must minimally include a commercial on-site sewage system as defined in this rule.

1050 (1) If the system being inspected does not contain, at a minimum, a commercial on-site sewage system as specified  
1051 in section 49(e), the inspector shall document that the system does not meet the minimum requirements of this  
1052 rule.

1053 (2) The system being inspected shall be evaluated with respect to the appropriate on-site sewage system rule or  
1054 Sanitary Engineering Bulletin 13 that was in place at the time of the system permitting and installation.

1055 (3) If the system was installed prior to 1964 there is no rule or bulletin with which to comply, but the system shall  
1056 minimally consist of a system as described in section 49(e).

1057 (d) Each component of the on-site sewage system shall be thoroughly inspected and documented, including but  
1058 not limited to:

1059 (1) The septic tank, grease trap or grease interceptor, holding tank, or privy vault shall be pumped by a licensed  
1060 **wastewater septage management vehicle** and inspected for:

1061 (A) working capacity;

1062 (B) watertightness and root intrusion;

1063 (C) concrete corrosion or tank deformation;

1064 (D) functional, intact inlet baffle;

1065 (E) functional, intact outlet baffle or outlet filter assembly;

1066 (F) functional and safe high water alarm and electrical box in a holding tank; and

1067 (G) riser to grade, securely fastened lid, and secondary childproof plug, if applicable.

1068 (2) The secondary treatment unit, if applicable, shall be pumped, if necessary, and thoroughly inspected and  
1069 documented, including, but not limited to:

1070 (A) working capacity;

1071 (B) watertightness and root intrusion;

1072 (C) concrete corrosion or tank deformation;

1073 (D) functionality and setting of all components, control panels, and alarms;

1074 (E) riser to grade, securely fastened lid, and secondary childproof plug, if applicable.

1075 (3) The dosing tank, if present, should be pumped if needed, and shall be thoroughly inspected and documented,  
1076 including but not limited to:

1077 (A) working capacity;

1078 (B) watertightness and root intrusion;

1079 (C) concrete corrosion or tank deformation;

1080 (D) riser to grade, securely fastened lid, and secondary childproof plug, if applicable; and

- 1081 (E) functional and safe effluent pump, pump controls, high water alarm and electrical box. If the pump  
 1082 is removed during the inspection, the manufacturer and model of the pump should be documented.
- 1083 (4) If there is a distribution box, the box should be opened for inspection. The box should be visually inspected  
 1084 and documented, including but not limited to:
- 1085 (A) watertightness and root intrusion;  
 1086 (B) concrete corrosion, box deformation or cracking;  
 1087 (C) functional, intact inlet baffle, with vent hole, if needed;  
 1088 (D) the number of outlets in use;  
 1089 (E) invert of the outlets all at the same level; and  
 1090 (F) the presence of solids or soil in the distribution box.
- 1091 (5) The soil absorption system shall be thoroughly observed and traversed. The following, at a minimum, shall be  
 1092 documented:
- 1093 (A) soft or wet areas;  
 1094 (B) lush vegetation or areas lacking vegetation;  
 1095 (C) depth of soil cover over the soil absorption system and final grading to promote surface water runoff;  
 1096 (D) approximate maximum depth of installation from grade;  
 1097 (E) signs of disturbance, construction, or compaction in the soil absorption system or dispersal area; and  
 1098 (F) sources of water directed toward the soil absorption system area such as downspouts, sump pump  
 1099 discharge, or hard surface runoff.
- 1100 (6) Drainage including surface diversion and subsurface drainage shall be inspected, including but not limited to:  
 1101 (A) The need for surface diversion and the presence or absence of sufficient diversion of surface water;  
 1102 (B) The presence or absence of subsurface drainage; and  
 1103 (C) Observation of the subsurface drainage outlet, if accessible.
- 1104 (7) Areas of solid piping should be observed for any evidence of crushed piping and wet areas which could indicate  
 1105 a broken pipe.
- 1106 (8) All applicable separation distances shall be confirmed.
- 1107 (9) Information obtained from the owner or owner's agent or from interior inspection of the structure of any sump  
 1108 pump, condensate drain, or other non-wastewater source of water discharging to the on-site sewage system.
- 1109 (e) Within thirty (30) days of a completed inspection, a written report of the system evaluation shall be submitted  
 1110 to the department including, but not limited to:
- 1111 (1) A sketch of the site and system indicating any changes to the system design from the construction plan in the  
 1112 permit file, areas of concern, inadequate separation distances, and other information as necessary to confirm  
 1113 compliance with this rule. A copy of the original construction plan may be used if it is accurate.
- 1114 (2) Indication of system failure, as defined in this rule, or malfunction of any component, if observed.

1115  
 1116 *(Indiana Department of Health; 410 IAC 6-10.1-54.1)*  
 1117

1118 SECTION 55. 410 IAC 6-10.1-56 IS AMENDED TO READ AS FOLLOWS:

1119 410 IAC 6-10.1-56 Revocation or modification of a construction or operating permit

1120 Authority: IC 16-19-3-4

1121 Affected: IC 16-19-3-4  
 1122  
 1123

1124 Sec. 56. A commercial on-site sewage system construction or operating permit may be revoked or modified by the  
 1125 department or **the health officer** for any of the following causes:

- 1126 (1) Violation of any of the provisions of this rule.  
 1127 (2) Violation of any limitation, term, or condition contained in the construction or operating permit.  
 1128 (3) Failure to disclose all facts relevant to construction, operation, and use of the commercial on-site sewage system in a  
 1129 manner that it can consistently treat and dispose of all sewage received for the life of the facilities it serves, without  
 1130 causing a health hazard, nuisance, surface water pollution or ground water pollution.  
 1131 (4) Any misrepresentation made to obtain the construction or operating permit.  
 1132 (5) Any change relating to the design, construction, or use of the on-site sewage system not approved, in writing, by the  
 1133 department.  
 1134 (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.

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SECTION 56. 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 septic tanks, dosing tanks, lift stations, **holding tanks, treatment units**, and soil absorption systems shall 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, <b>Holding Tank</b>	Soil Absorption System
Private water supply well <sup>1,2</sup> , <b>subsurface cistern</b> <sup>1</sup>	100	100
Private geothermal well <sup>1,2</sup>	100	100
Commercial water supply well <sup>1,2</sup>	100	100
Commercial geothermal well <sup>1,2</sup>	100	100
Public water <del>supply</del> <b>system</b> well <sup>9</sup> , lake, <sup>1, 3, 4</sup> or reservoir <sup>1, 3, 4</sup>	200	200
Other pond, retention pond, lake, or reservoir <sup>3</sup>	50	50
Storm water detention area <sup>3, 5</sup>	25	25
River, stream, ditch, or drainage tile <sup>6</sup>	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 <sup>7</sup>	10 <sup>8</sup>
Front, side, or rear lot lines	5	5
Water lines continually under pressure	10	10
Suction water lines	50	50
<b>Sinkhole</b>	<b>25</b>	<b>25</b>
<sup>1</sup> 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)( <del>8</del> )(7) of this rule, unless that hazard can be overcome through on-site sewage system design.		
<sup>2</sup> 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.		
<sup>3</sup> Measured from the normal or ordinary high water mark.		
<sup>4</sup> See subsections (b) and (c).		
<sup>5</sup> Storm water detention area: area designated for the temporary detention of storm water, with the outlet located at the lowest elevation of the depression.		
<sup>6</sup> See section 63(f) of this rule for subsurface drainage system separation.		
<sup>7</sup> 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.		
<sup>8</sup> A minimum separation of ten (10) feet is required on all sites.		
<sup>9</sup> <b>Required separation distance may be reduced to less than 200 feet for a public water system well if specified in writing by the Indiana Department of Environmental Management (IDEM).</b>		

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION 57. 410 IAC 6-10.1-62 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-62 Dispersal area

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

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

(1) the soil loading rate used to determine the size of the soil absorption system is five-tenths (0.5) gallons per day per square foot (gpd/ft<sup>2</sup>) or less; or

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

~~(A) bedrock;~~

~~(B) dense material;~~

~~(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~~



SECTION 58. 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 be constructed if drainage from an adjoining upslope landscape affects the soil absorption system site;

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

(4) shall 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 be sufficiently deep to lower a seasonal high water table as required in subsection (d) or (e).

(c) ~~The subsurface drain shall surround the on-site sewage system.~~ **If the site has a slope of equal to or less than two percent (2%), the subsurface drain shall 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 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 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 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 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 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 be located at soil absorption system sites as follows:

(1) All portions of a subsurface drainage system shall 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 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 follows: for a subsurface trench system or parallel to the long axis of an elevated sand mound**

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

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

**(i) fifty-five (55) feet from the downslope edge of the most downslope subsurface soil absorption**

trench or the downslope edge of INDOT Spec 23 sand in an elevated sand mound; or  
(ii) sixty-five (65) from a downslope segment drain; and

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

unless a greater spacing is determined through calculations.

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

(g) The subsurface drain pipe shall be:

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

(2) slotted; and

(3) wrapped with a geotextile fabric with an effective opening size not smaller than two-tenths (0.2) millimeter and no larger than eighty-five hundredths (0.85) millimeter when installed in:

(A) sands;

(B) loamy sands;

(C) sandy loams;

(D) fine sandy loams;

(E) loams;

(F) silt loams; or

(G) silts.

(h) The subsurface drain trench shall:

(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 used;

(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; and

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

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

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

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

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

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

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

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

(1) section 76 of this rule;

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

(3) INDOT Specification 23 sand or equivalent.

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

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

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

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

(Indiana Department of Health; [410 IAC 6-10.1-63](#); 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 59. 410 IAC 6-10.1-64 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-64 On-site evaluation

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 64. (a) Before issuance of any permit for construction of a commercial on-site sewage system or the replacement or

1349 alteration of a soil absorption system, an on-site evaluation, which shall include a description of the soil profile, shall be conducted.  
1350 (b) Properties of the soil at each site shall be described by a **registered professional** soil scientist using the guidelines  
1351 set forth in the soil manuals, technical bulletins, and handbooks of the NRCS.

1352 **(c) A minimum of three (3) soil profile descriptions shall be completed in the area of the soil absorption field and**  
1353 **shall provide good coverage of the entire soil absorption field area. For large commercial systems, additional soil profile**  
1354 **descriptions may be necessary.**

1355 ~~(d)~~ (d) Soil profile information shall be recorded:

- 1356 (1) to a depth of five (5) feet; or  
1357 (2) until a layer is encountered that cannot be readily penetrated;  
1358 whichever is shallower.

1359 ~~(e)~~ (e) The on-site evaluation shall be conducted before application and plan submittal.

1360 ~~(f)~~ (f) The information in the written on-site soils evaluation report shall include the following:

1361 (1) For topographic information, the following:

1362 (A) The slope and slope aspect.

1363 (B) Surface drainage characteristics and patterns including swales, ditches, and streams.

1364 (C) The proposed or existing location of house and well or other water supply.

1365 (D) The location of other major features or structures.

1366 (E) The location of soil evaluation sites **in relation to a minimum of two (2) fixed reference points** and  
1367 appropriate soil type boundaries.

1368 (F) The topographic position of the site.

1369 (2) For soil characteristics, the following:

1370 (A) Parent material.

1371 (B) The approximate depths of soil horizons.

1372 (C) The soil color, structure, and texture at each horizon.

1373 (D) The horizon designation for each horizon.

1374 (E) The depth to any layer that has a soil loading rate greater than seventy-five hundredths (0.75) gallons per  
1375 day per square foot or less than twenty-five hundredths (0.25) gallons per day per square foot.

1376 (F) The depth to seasonal high ground water as indicated by soil wetness characteristics.

1377 (G) The depth to bedrock.

1378 (H) The soil consistence at each horizon.

1379 (I) The soil effervescence at each horizon.

1380 (J) The percent coarse fragments at each horizon.

1381 (K) The percent clay at each horizon, by field estimation, for any horizon where the percent coarse fragments is  
1382 greater than thirty-five percent (35%) by volume.

1383 (L) The presence or absence of roots.

1384 (M) Frost penetration depth, if applicable.

1385 ~~(g)~~ (g) When soil characteristics are to be used for calculations for the depth of a subsurface drainage system, the following  
1386 information shall be recorded to a depth of eighty (80) inches:

1387 (1) The information required in ~~subsection~~ **subdivision (e)(f)(2)**.

1388 (2) Particle size family.

1389 **(h) All on-site soil evaluation reports created from the evaluation of the soil profiles that are to be used for**  
1390 **obtaining an on-site sewage system construction permit shall be signed by the registered professional soil scientist and**  
1391 **submitted directly to the department by the soil scientist.**

1392

1393 *(Indiana Department of Health; 410 IAC 6-10.1-64; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1394 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1395

1396 SECTION 60. 410 IAC 6-10.1-65 IS AMENDED TO READ AS FOLLOWS:

1397

1398 410 IAC 6-10.1-65 Construction of sewers

1399 Authority: IC 16-19-3-4

1400 Affected: IC 16-19-3-4

1401

1402 Sec. 65. (a) Sewers beginning three (3) feet outside the foundation walls of buildings shall be constructed of piping that

1403 meets the minimum requirements of section 75(a)(1) or 75(a)(2) of this rule.

1404 (b) Sewers serving individual units may connect to the main sewer by wye fittings. Sewers serving more than one (1)  
1405 unit must connect to the main sewer at a manhole.

1406 (c) Sewers shall be laid to a uniform grade and at a slope equal to or greater than the minimum slopes shown in Table IV  
1407 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	<del>0.61</del> <b>0.67</b>
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.

1408 (d) No outside building sewer shall be less than four (4) inches in diameter. Minimum sewer diameters will vary upward  
1409 from four (4) inches according to use. Because of slope, cleaning, and maintenance problems, installation of four (4) inch sewers  
1410 is unacceptable except where they can adequately serve a building or facility having very low anticipated sewage flows. Sewers  
1411 shall be adequately sized to carry average and intermittent peak flows. Soil, waste, vent, and drain piping inside the building shall  
1412 comply with the Indiana Plumbing Code (675 IAC 16).  
1413

1414 (e) Adequate sewer bedding shall be provided. ~~All Building~~ **Building** sewers shall be buried with at least two (2) feet of cover to  
1415 protect them from freezing. Force mains must be ~~buried deep enough~~ **installed below the frost line as listed in section 94(d),**  
1416 **Table IX** to prevent freezing unless the lift station and force main can be designed such that the force main will drain completely.

1417 (f) Sewers proposed under driveways, parking slabs, or other heavily loaded areas, shall be adequately constructed to  
1418 prevent damage or breaking.

1419 (g) Manholes must be installed at the end of each line, at all changes in grade, size, or alignment, at all intersections, and  
1420 at intervals not greater than four hundred (400) feet for sewers fifteen (15) inches diameter or less. Intervals not greater than five  
1421 hundred (500) feet are allowed for sewers eighteen (18) inches or greater in diameter.

1422 (h) A drop manhole should be installed where a sewer enters the manhole twenty-four (24) inches or more above the  
1423 manhole invert. The outside drop connection constructed with a drop manhole should be encased in concrete.

1424 (i) The minimum acceptable diameter for manholes is forty-eight (48) inches. The access opening into the manhole must  
1425 be at least twenty-two (22) inches in diameter.

1426 (j) Cleanouts may be substituted for manholes on short sewer runs. Cleanouts must:

- 1427 (1) be the same diameter as the sewer they are to serve; and
- 1428 (2) extend to grade.

1429 A cleanout may be installed at the terminus of a sewer provided that a manhole is within three hundred (300) feet of the terminus.

1430  
1431 *(Indiana Department of Health; 410 IAC 6-10.1-65; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1432 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
1433

1434 SECTION 61. 410 IAC 6-10.1-67 IS AMENDED TO READ AS FOLLOWS:

1435  
1436 410 IAC 6-10.1-67 Sewage lift stations and force mains

1437 Authority: IC 16-19-3-4

1438 Affected: IC 16-19-3-4

1439  
1440 Sec. 67. (a) Sewage lift stations:

1441 (1) must be protected from damage by a one hundred (100) year flood event; and

1442 (2) shall remain fully operational and accessible by maintenance vehicles during a twenty-five (25) year flood event and

1443 all weather conditions.

1444 (b) Submersible pumps and motors must be designed specifically for raw sewage use. Pumps must be readily removable  
1445 for maintenance, repair, or replacement by installation with guide rail systems, breakaway flanges, and lifting chains.

1446 (c) Except where grinder or cutter pumps are used, raw sewage pumps shall be capable of passing spheres of at least three  
1447 (3) inches in diameter. Effluent pumps may be used in lift stations following septic tanks.

1448 (d) At least two (2) pumps shall be provided in each lift station. Pumps shall be of the same capacity. Each shall be  
1449 capable of handling at least the expected maximum flow to the lift station.

1450 (e) Controls other than float switches shall:

1451 (1) be installed outside the lift station;

1452 (2) comply with the Indiana Electrical Code (675 IAC 17); and

1453 (3) include automatic pump alternators.

1454 Encapsulated mercury float type switches are preferred over other types. Motor controls shall be protected by a conduit seal or  
1455 other appropriate measures to exclude moisture from the wet well. Power cords shall meet the requirements of the Mine Safety  
1456 and Health Administration for trailing cables. Ground fault interruption protection shall be used to de-energize the circuit in event  
1457 of any failure of the cable.

1458 (f) An audio-visual alarm system shall be provided to indicate power failure, pump failure, excessive water level or any  
1459 cause of pump station malfunction. The alarm shall be:

1460 (1) located in an area where it can be observed twenty-four (24) hours a day; and

1461 (2) powered by a circuit separate from the pump circuit.

1462 (g) Overflows from lift stations are not permitted.

1463 (h) Pump discharge lines shall include suitable shutoff and check valves. Check valves shall be located between the pump  
1464 and the shutoff valve ~~and only in the horizontal portion of the line~~. Check valves should be omitted in discharge lines connected  
1465 individually to pumps where the lines must drain back into the pump station wet well between ~~pumpings~~ **doses**.

1466 (i) Force mains should be sized to provide a scouring velocity of at least two (2) feet per second at the design capacity of  
1467 the pump.

1468 (j) Automatic air relief valves shall be installed at high points in the force main to prevent air locking.

1469 (k) Separation distances between sanitary force mains and water lines shall be **as specified in section 61**. ~~the same as~~  
1470 ~~required for gravity sewers. A ten (10) foot horizontal separation is required between parallel water lines and force mains, and an~~  
1471 ~~eighteen (18) inch vertical separation is required where force mains cross water lines.~~

1472 (l) ~~Force mains crossing other properties will have to be kept accessible through construction and maintenance easements.~~

1473  
1474 *(Indiana Department of Health; 410 IAC 6-10.1-67; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1475 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1476 SECTION 62. 410 IAC 6-10.1-68 IS AMENDED TO READ AS FOLLOWS:

1477  
1478  
1479 410 IAC 6-10.1-68 Septic tanks: general requirements

1480 Authority: IC 16-19-3-4

1481 Affected: IC 16-19-3-4

1482  
1483 Sec. 68. (a) Septic tanks shall be:

1484 (1) watertight and constructed of ~~durable material such as~~ **pre-cast concrete, fiber-reinforced polyester, or**  
1485 **thermoplastic material as described in IAPMO Z1000 2019 section 5, 6, or 7** ~~fiberglass, polyethylene, or~~  
1486 ~~polypropylene~~; and

1487 (2) protected from corrosion.

1488 (b) Cast in place, concrete block, wood, or metal septic tanks are prohibited.

1489 (c) Every septic tank shall have a minimum capacity below the water line to provide at least forty-eight (48) hours  
1490 detention time.

1491 (d) All septic tank effluent including effluent from tanks fitted with aeration units for aerobic digestion shall discharge  
1492 into a soil absorption system or other treatment system as approved in accordance with section 49 ~~(h)~~ **(i)** of this rule.

1493 (e) Two-compartment tanks shall meet the following requirements:

1494 (1) The liquid volume of the first compartment shall be between one-half (1/2) and two-thirds (2/3) of the total tank  
1495 volume.

1496 (2) The divider wall shall be:

- 1497 (A) monolithically cast in the tank; or  
 1498 (B) permanently secured within the tank body using noncorrosive fasteners or fittings.  
 1499 (3) The transfer port or ports between the compartments shall consist of two (2) or more openings with a combined area  
 1500 of at least fifty (50) square inches. A continuous port across the width of the divider wall is also acceptable.  
 1501 (4) The transfer port or ports shall be located in the middle twenty-five percent (25%) of the liquid depth.  
 1502 (5) An access opening meeting the requirements of section 69(o) of this rule must be provided above each compartment,  
 1503 including a riser meeting the requirements of section 69(p) of this rule, for maintenance pumping above each  
 1504 compartment.  
 1505 (f) When multiple tanks are used in series, no single tank may be less than seven hundred fifty (750) gallons. The larger  
 1506 of the two (2) tanks must be upstream of the other.  
 1507 (g) When sewage is pumped into a septic tank using a grinder pump:  
 1508 (1) a two-compartment tank must be used with the sewage pumped into the first compartment; or  
 1509 (2) two (2) tanks in series must be used, with the sewage pumped into the first tank.  
 1510 (h) Tanks fitted with aeration units for aerobic digestion shall:  
 1511 (1) conform to NSF/ANSI Standard 40-20102023, Residential Wastewater Treatment Systems, for Class I plants or to  
 1512 standards of an equivalent third party product testing laboratory acceptable to the department that meet or exceed the  
 1513 NSF/ANSI standards;  
 1514 (2) bear a current registered certification mark;  
 1515 (3) provide a minimum aerobic treatment capacity to properly process the design daily flow;  
 1516 (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  
 1517 (5) discharge into a soil absorption system or other treatment system as approved in accordance with section 49(h)(i) of  
 1518 this rule.  
 1519 (i) Water softener backwash shall be discharged to:  
 1520 (1) the building sewer;  
 1521 **(2) an effluent or sewage lift station;**  
 1522 ~~(2) (3)~~ a secondary treatment device;  
 1523 ~~(3) (4)~~ the effluent sewer on the downstream side of either the septic tank or the secondary treatment device;  
 1524 ~~(4) (5)~~ the dosing tank serving the soil absorption system; or  
 1525 ~~(5) (6)~~ a separate soil absorption system constructed specifically for the water softener backwash.

1526  
 1527 *(Indiana Department of Health; 410 IAC 6-10.1-68; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
 1528 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
 1529

1530 SECTION 63. 410 IAC 6-10.1-69 IS AMENDED TO READ AS FOLLOWS:

1531  
 1532 410 IAC 6-10.1-69 Septic tanks: construction details

1533 Authority: IC 16-19-3-4

1534 Affected: IC 16-19-3-4  
 1535

- 1536 Sec. 69. (a) The minimum water depth in any compartment shall be thirty (30) inches.  
 1537 (b) The maximum water depth for calculating septic tank capacity shall not exceed six and one-half (6 1/2) feet.  
 1538 (c) The inlet baffle or sanitary tee shall extend at least:  
 1539 (1) eight (8) inches below the liquid level; and  
 1540 (2) to the top of the inlet sewer.  
 1541 (d) All new septic tanks must be provided with an outlet filter that meets or exceeds the requirements of section 72 of  
 1542 this rule.  
 1543 (e) Any septic tank not provided with an outlet filter shall be provided with:  
 1544 (1) an outlet baffle or sanitary tee that extends below the liquid level at least ten (10) inches, but not more than forty  
 1545 percent (40%) of the tank liquid depth; and  
 1546 (2) a gas deflection baffle that is:  
 1547 (A) constructed of durable materials not subject to corrosion or decay; and  
 1548 (B) configured to deflect rising gas bubbles toward the interior of the tank.  
 1549 (f) There shall be at least one (1) inch clear space between the underside of the septic tank lid and the top of the inlet and  
 1550 outlet baffles or tees.

1551 (g) Scum storage capacity (space between the liquid level and the top of the outlet baffle or tees) shall be not less than  
1552 twelve and one-half percent (12.5%) of the liquid depth of the septic tank.

1553 (h) The inlet baffle shall not be more than twelve (12) inches nor less than four (4) inches from the inside of the inlet end  
1554 of the tank. The outlet baffle shall not be more than twelve (12) inches nor less than four (4) inches from the outlet end of the  
1555 septic tank. Baffles shall be constructed of durable materials not subject to corrosion or decay.

1556 (i) The bottom of the septic tank inlet shall not be less than two (2) inches nor more than four (4) inches above the liquid  
1557 level.

1558 (j) Reinforced concrete septic tanks shall be constructed of concrete **designed to withstand all structural, hydraulic,**  
1559 **hydrostatic, earth loads, and any anticipated traffic loads, and** with a compressive strength of four thousand (4,000) pounds  
1560 per square inch or greater.

1561 (k) Concrete septic tank walls shall be at least two and one-half (2 1/2) inches or greater in thickness. The design must  
1562 allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1563 (l) Concrete septic tank bottoms shall conform to the specifications set forth for septic tank walls.

1564 (m) Concrete septic tank tops shall be a minimum of four (4) inches in thickness and reinforced with three-eighths (3/8)  
1565 inch reinforcing rods in a twelve (12) inch grid or equivalent.

1566 (n) Type III fibers, **meeting ASTM C 1116-23** are permitted only as a secondary reinforcing material. Fiber additions  
1567 will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

1568 (o) All access openings shall meet the following requirements:

1569 (1) At least one (1) opening eighteen (18) inches in minimum dimension per compartment for pumping access.

1570 (2) An access opening shall be located over each of the following:

1571 (A) The inlet.

1572 (B) The outlet.

1573 (C) The sanitary tee or baffle, if present, on the partition or divider wall of a two-compartment septic tank.

1574 (3) All access openings shall be sized and positioned in such a way as to allow for maintenance, cleaning, and servicing  
1575 of septic tanks and outlet filters.

1576 (p) All risers shall meet the following requirements:

1577 (1) Risers and riser covers shall be made of corrosion resistant materials and withstand design external loads.

1578 (2) The lower section of the riser assembly shall be:

1579 (A) cast into the tank lid; or

1580 (B) sealed to the top of the tank with butyl sealant meeting ASTM C 990-09~~25~~ to provide a watertight seal.

1581 (3) All risers shall be fitted with watertight, securely fastened covers.

1582 (q) Pipe connectors shall be provided that meet the following requirements:

1583 (1) Each pipe penetration shall be sealed with a resilient rubber pipe connector that uses an expansion ring, tension band,  
1584 or a take-up device for mechanically compressing the resilient portion of the connector against the pipe.

1585 (2) All metallic mechanical devices, including expansion rings, tension bands, take-up devices, and screws, shall be  
1586 constructed of series 300 stainless steel.

1587 (3) Connectors shall conform to:

1588 (A) ASTM C 1644-06~~24~~, Standard Specification for Resilient Connectors Between Reinforced Concrete On-  
1589 Site Wastewater Tanks and Pipes; or

1590 (B) ASTM C 923-08~~20~~(2025), Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box  
1591 Sections Using Preformed Flexible Joint Sealants.

1592  
1593 *(Indiana Department of Health; 410 IAC 6-10.1-69; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*  
1594 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*  
1595 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1596  
1597 SECTION 64. 410 IAC 6-10.1-70 IS AMENDED TO READ AS FOLLOWS:

1598  
1599 410 IAC 6-10.1-70 Dosing tanks

1600 Authority: IC 16-19-3-4

1601 Affected: IC 16-19-3-4

1602  
1603 Sec. 70. (a) Dosing tanks:

1604 (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 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 be at least two and one-half (2 1/2) inches or greater in thickness. The design shall 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 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. 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 be provided with pipe connectors that meet the following requirements:

(1) Each pipe penetration shall be sealed with a flexible, resilient rubber pipe connector that uses an expansion ring, 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 be constructed of series 300 stainless steel.

(3) Conform to:

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

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

(h) Each dosing tank shall be fitted with an effluent **or sewage** pump sized in conformance with section 73 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:

(1) be on a separate circuit from the effluent pump; and

(2) include an audible and visible alarm.

(i) Switches that are comparable to mercury float level switches shall 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 65. 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:**

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

**(2) shall be protected from corrosion.**

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

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

**(2) as a temporary storage facility where occupancy of the commercial facility must continue while an existing commercial on-site sewage system is being replaced or renovated; or**

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

1659 already received a construction permit.

1660 (d) All sewage holding tanks shall have a minimum capacity of:

1661 (1) A septic tank or a septic tank and a dosing tank as required by this rule for tanks that will eventually precede  
1662 a soil absorption field; or

1663 (2) For permanent sewage holding tanks, the greater of

1664 (A) one thousand (1,000) gallons; or

1665 (B) at least three (3) times the design daily flow of the commercial facility as determined by this rule.

1666 (e) Reinforced concrete sewage holding tanks be constructed of concrete designed to withstand all structural,  
1667 hydraulic, hydrostatic, earth loads, and any anticipated traffic loads, and with a compressive strength of four  
1668 thousand (4,000) pounds per square inch or greater.

1669 (f) Concrete sewage holding tank walls and bottoms shall be at least two and one-half (2 1/2) inches or greater in  
1670 thickness. The design shall allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

1671 (g) Concrete sewage holding tank tops shall be a minimum of four (4) inches in thickness and reinforced with  
1672 three-eighths (3/8) inch reinforcing rods in a twelve (12) inch grid or equivalent.

1673 (h) ASTM C 1116-23 type III fibers are permitted only as a secondary reinforcing material. Fiber additions will  
1674 be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing  
1675 material.

1676 (i) All sewage holding tanks shall have at least one (1) opening eighteen (18) inches in minimum diameter for  
1677 pumping access positioned in a way as to allow for maintenance, cleaning and servicing.

1678 (j) All holding tanks shall be required to have an operating permit issued by the department or local health  
1679 department.

1680 (k) All receipts from pumping and maintenance of a sewage holding tank and other documents for repair or  
1681 modification of a sewage holding tank shall be submitted to the department or local health department, whomever  
1682 issued the operating permit, within thirty (30) days of the service provided or in a timeframe approved by the  
1683 department or local health department.

1684 (l) In the event that a sewage holding tank is not operated in a safe and sanitary manner and in accordance with  
1685 IC 16-41-25-9 and this rule, the department or local health department may require the commercial facility to:

1686 (1) Connect to sanitary sewer if the sanitary sewer is available within three hundred (300) feet of the affected  
1687 property line and is available for connection at a construction cost and connection fee estimated not to exceed one  
1688 hundred fifty percent (150%) of the cost estimated for installing an on-site sewage system to serve the commercial  
1689 facility; or

1690 (2) Install an on-site sewage system with a soil absorption field in compliance with this rule or connect to an  
1691 existing soil absorption system that has not failed.

1692 (Indiana Department of Health; 410 IAC 6-8.3-70.1)

1693 SECTION 66. 410 IAC 6-10.1-71 IS AMENDED TO READ AS FOLLOWS:

1694 410 IAC 6-10.1-71 Septic tanks and dosing tanks, **and sewage holding tanks**: installation and maintenance

1695 Authority: IC 16-19-3-4

1696 Affected: IC 16-19-3-4

1700 Sec. 71. (a) Septic tanks, ~~and~~ dosing tanks, **and sewage holding tanks** shall be installed level on:

1701 (1) undisturbed soil;

1702 (2) sand;

1703 (3) aggregate not larger than one and one-half (1 1/2) inches in diameter; or

1704 (4) an engineered base.

1705 (b) All drain holes in septic tanks, ~~and~~ dosing tanks, **and sewage holding tanks** shall be:

1706 (1) fitted with a threaded fitting, cast in place, and plugged with a threaded plug; or

1707 (2) plugged with an expandable pipe plug with a wing nut.

1708 (c) When the top of the septic tank, ~~or~~ dosing tank, **or sewage holding tank** is installed at or above grade, all access  
1709 openings shall be fitted with watertight, securely fastened covers.

1710 (d) When the top of the septic tank, ~~or~~ dosing tank, **or sewage holding tank** is installed below grade, risers shall:

1711 (1) be installed over access openings used for pumping and for maintenance of the outlet filter in the septic tank;

- 1713 (2) be large enough for access to the tank through the access opening in the top of the septic tank, ~~or~~ dosing tank, **or**  
1714 **sewage holding tank** to clean the tanks and to maintain floats, sensors, filters and pumps;  
1715 (3) have the lower section sealed to the top of the tank with butyl sealant meeting ASTM C 990-09<sup>25</sup> to provide a  
1716 watertight seal, if the riser assembly is not cast into the tank lid;  
1717 (4) have joints between riser sections sealed in accordance with the manufacturer's instructions so as to be watertight;  
1718 (5) extend to or above final grade; ~~and~~  
1719 (6) be fitted with a watertight cover securely fastened to the riser; **and**  
1720 **(7) be fitted with a secondary childproof safety device under each riser lid that extends to the surface.**

1721 ~~(e) Septic tanks and dosing tanks shall not be installed with the top of the riser below the RFE.~~

1722 ~~(fe) All joints in the sewer connecting septic tanks in series, or septic tanks to dosing tanks, or sewage holding tanks~~  
1723 ~~shall be sealed in accordance with the manufacturer's instructions in order to be watertight and to withstand the pressures exerted~~  
1724 ~~on them.~~

1725  
1726 *(Indiana Department of Health; 410 IAC 6-10.1-71; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1727 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1728  
1729 SECTION 67. 410 IAC 6-10.1-72 IS AMENDED TO READ AS FOLLOWS:

1730  
1731 410 IAC 6-10.1-72 Outlet filters

1732 Authority: IC 16-19-3-4

1733 Affected: IC 16-19-3-4

1734  
1735 Sec. 72. (a) An outlet filter shall be installed in the septic tank of new on-site sewage systems and existing on-site sewage  
1736 systems requiring a new septic tank.

1737 (b) For on-site sewage systems requiring repair, or soil absorption systems requiring replacement, the department may  
1738 require an outlet filter. The outlet filter, if required by the department, must meet the requirements of this section.

1739 (c) Outlet filters shall be located in the outlet end of:

1740 (1) a single septic tank when not used in series;

1741 (2) the second compartment of two-compartment septic tanks;

1742 (3) the last septic tank when two (2) or more tanks are used in series; or

1743 (4) a secondary watertight structure located after the last septic tank prior to a dosing tank, **an effluent lift station,**  
1744 distribution box, or secondary treatment unit.

1745 (d) An access opening of eighteen (18) inches in minimum dimension shall be:

1746 (1) located over the outlet filter; and

1747 (2) provided with a riser to grade that meets the minimum requirements of section 69(o) and 69(p) of this rule.

1748 (e) Outlet filters shall:

1749 (1) conform to NSF/ANSI Standard 46-2010~~a~~<sup>2023</sup>, Evaluation of Components and Devices Used in Wastewater  
1750 Treatment Systems, maintain a current product listing with an ANSI accredited third-party certifier, and bear a listing  
1751 mark;

1752 (2) be rated by the manufacturer for a daily flow equal to or greater than the **required** liquid capacity of the septic tank(s);

1753 (3) prevent the passage of solids larger than one-eighth (1/8) of an inch;

1754 (4) have inlets and outlets of at least four (4) inches in diameter;

1755 (5) function without a bypass of unfiltered sewage, sludge, or scum, during normal use;

1756 (6) be made of a noncorrosive material designed for use in sewage applications;

1757 (7) maintain structural integrity, not tearing or distorting so as to make it inoperable during normal operation, throughout  
1758 the life of the device; and

1759 (8) have removable outlet filter cartridges.

1760 (f) The outlet filter housing shall:

1761 (1) connect to the outlet pipe or structure wall with noncorrosive fasteners;

1762 (2) extend at least five (5) inches above the liquid level of the tank;

1763 (3) be installed so the bottom of the filter inlet extends below the liquid level at least ten (10) inches, but not more than  
1764 forty percent (40%) of the septic tank liquid depth;

1765 (4) include a gas deflection device that remains in place when the filter cartridge is removed; and

1766 (5) be solvent welded to a PVC Schedule 40 outlet pipe that meets the minimum requirements of section 75(a)(1) or

- 1767 75(a)(2) of this rule, creating a watertight and mechanically sound joint.  
1768 (g) A filter alarm may be installed in the septic tank to indicate when the outlet filter is in need of service.  
1769 (h) An outlet filter with cartridge shall remain in service for the life of the septic tank.  
1770 (i) Outlet filter manufacturers shall provide installation and maintenance instructions with each outlet filter. Outlet filters

1771 shall be:

- 1772 (1) installed according to manufacturer's recommendations;  
1773 (2) located so they do not interfere with pumping and cleaning of the septic tank; and  
1774 (3) placed to allow accessibility for routine maintenance without entering the septic tank or outlet structure if separate  
1775 from the septic tank.

1776 (j) Outlet filters shall be serviced according to the manufacturer's service recommendations, but no less frequently than  
1777 each time the septic tank is cleaned, as follows:

- 1778 (1) The outlet filter shall be:  
1779 (A) cleaned and washed so that the filter waste enters the septic tank; or  
1780 (B) exchanged with a clean filter.  
1781 (2) All contaminated ~~effluent~~ **outlet** filters shall be treated as untreated sewage and handled properly during the cleaning  
1782 or exchange process.

1783  
1784 *(Indiana Department of Health; 410 IAC 6-10.1-72; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*  
1785 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*  
1786 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1787  
1788 SECTION 68. 410 IAC 6-10.1-73 IS AMENDED TO READ AS FOLLOWS:

1789  
1790 410 IAC 6-10.1-73 Effluent pumps

1791 Authority: IC 16-19-3-4

1792 Affected: IC 16-19-3-4

1793  
1794 Sec. 73. (a) All effluent pumps shall be:

- 1795 (1) submersible pumps suitable for use in a corrosive atmosphere;  
1796 (2) sized to deliver the total design flow rate while meeting the total dynamic head requirements of the on-site sewage  
1797 system;  
1798 (3) connected to pump discharge piping that is adequately secured; and  
1799 (4) installed in such a manner as to allow for removal without entering the dosing tank or dewatering the dosing tank.  
1800 (b) Duplex pumps shall be used for flows greater than seven hundred fifty (750) gallons per day.

1801 (c) Effluent pumps shall be provided with a suitable means of quick, convenient disconnection from the discharge piping,  
1802 as follows:

- 1803 (1) Fittings and valves shall be of compatible corrosion resistant material.  
1804 (2) A quick disconnect coupling, breakaway flange, or similar disconnect device shall be provided for each pump  
1805 discharge pipe.  
1806 (3) Quick disconnect couplings and valves shall be readily accessible from the ground surface without entering the dosing  
1807 tank.  
1808 (4) Submersible pumps shall be provided with a corrosion resistant lifting apparatus such as a rope or chain to facilitate  
1809 removal of the pump. For projects involving flows greater than seven hundred fifty (750) gallons per day, pumps must  
1810 be mounted on guide rails manufactured to withstand the corrosive environment of a dosing tank. **Guide rails are not**  
1811 **required if documentation is provided with the construction plan submittal that demonstrates each pump weighs**  
1812 **less than fifty (50) pounds and that each pump will not be installed deeper than eight (8) feet below grade.**

1813 (d) All floats for pump operation shall be mounted according to manufacturer's specifications using fasteners  
1814 manufactured for that purpose.

1815 (e) Controls other than liquid level sensors shall not be located within the dosing tank.

1816 (f) Junction boxes shall be rated as a NEMA 4X, National Electrical Manufacturers Association, NEMA 250-2008**2020**.

1817 All connectors to the junction box shall form a watertight seal:

- 1818 (1) to the junction box; and  
1819 (2) between connector openings and incoming wires.  
1820 (g) Any connector not used for wiring shall be fitted with a watertight plug.

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(Indiana Department of Health; [410 IAC 6-10.1-73](#); 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 69. 410 IAC 6-10.1-74 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-74 Distribution box specifications  
Authority: IC 16-19-3-4  
Affected: IC 16-19-3-4

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

**(b) The distribution box material shall:**  
**(1) be watertight;**

~~(2)~~ **(2)** be resistant to corrosion and decay; and  
~~(3)~~ **(3)** have sufficient structural strength to contain sewage and resist lateral compressive and bearing loads.

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

~~(d)~~ **(d)** The distribution box ~~or the top of the distribution box riser~~ shall be fitted with a watertight, **securely fastened** removable lid for access. ~~The distribution box may be fitted with a riser to the ground surface. The riser joints and the lid connection to the riser must be watertight.~~ **When the top of the distribution box is installed below final grade, a riser shall be installed over the box and extend to or above final grade. The joints between riser sections shall be watertight.**

**(e) Distribution boxes shall be stabilized so as to prevent movement during installation and operation.**

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

~~(g)~~ **(g)** The influent port shall be located or baffled to prevent unequal distribution of effluent to the distribution system.

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

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

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

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

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

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

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

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

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

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

(1) at the same elevation;

(2) of the same diameter; and

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

(Indiana Department of Health; [410 IAC 6-10.1-74](#); 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 70. 410 IAC 6-10.1-75 IS AMENDED TO READ AS FOLLOWS:

410 IAC 6-10.1-75 Pipe specifications  
Authority: IC 16-19-3-4  
Affected: IC 16-19-3-4

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

(1) Gravity sewer pipe and gravity effluent sewer pipe shall meet the following standards:

- 1875 (A) For PVC pipe, the following:
- 1876 (i) ASTM ~~D 2665-12~~ **D 2665-25** for four (4) inch and six (6) inch pipe only.
- 1877 (ii) ~~ASTM F 891-10 SDR 35 for four (4) inch through eight (8) inch cellular core pipe with minimum~~
- 1878 ~~pipe stiffness of 50 (PS 50).~~
- 1879 (iii)(ii) ASTM ~~D 3034-08~~ **D 3034-24c1** for the following: ~~(AA) SDR 26 and SDR 35 for four (4) inch~~
- 1880 ~~through fifteen (15) inch pipe.~~
- 1881 ~~(BB) SDR 26 with gasketed compression type joints for special crossings above or below~~
- 1882 ~~potable water lines where the vertical clearance of eighteen (18) inches required in section~~
- 1883 ~~61(d)(2) of this rule cannot be met.~~
- 1884 (B) For ABS pipe, the following:
- 1885 (i) ASTM ~~D 2661-11~~ **D 2661-24** for four (4) inch and six (6) inch pipe only.
- 1886 (ii) ASTM ~~D 2680-01 (Reapproved 2009)~~ **D 2680-20(2025)** for eight (8) inch through fifteen (15) inch
- 1887 pipe.
- 1888 (iii) ~~ASTM D 2751-05 SDR 23.5 or SDR 35 for four (4) inch and six (6) inch pipe only.~~
- 1889 (C) ASTM F 480-12**25**, Schedule 40 and 80.
- 1890 (D) Waterworks grade ductile iron pipe with mechanical or tyton joints.

1891 (2) Pressure sewer, effluent force main, manifold, and pressure distribution lateral pipe shall meet the following

1892 standards:

- 1893 (A) For PVC pipe, the following:
- 1894 (i) ASTM D 2241-09**25a** SDR 13.5, SDR 17, SDR 21, or SDR 26.
- 1895 (ii) ASTM D 1785-06**21a** Schedule 40, 80, or 120.
- 1896 ~~(B) For ABS pipe, the following:~~
- 1897 ~~(i) ASTM D 1527-99 (Reapproved 2005) Schedule 40, 80, or 120, with solvent weld fittings.~~
- 1898 ~~(ii) ASTM D 2282-99 (Reapproved 2005) SDR 13.5, SDR 17, SDR 21, or SDR 26.~~
- 1899 **(B) ASTM D 3035-22 DR 7, 9, 11, 13.5, 17, or 21 with required heat fusion joints being made in accordance**
- 1900 **with ASTM F 2620-24.**

- 1901 ~~(b) Gasketed compression type joints~~ **Upgraded piping** must be used on ~~pressure sewers when they are located ten (10)~~
- 1902 ~~feet or less from a water line~~ **do not meet the required horizontal and vertical separations required in section 61(e) and (f).**
- 1903 (c) Soil absorption system gravity distribution laterals shall meet one (1) of the following standards:
- 1904 (1) Four (4) inch diameter sewer pipe listed in subsection (a)(1) and (a)(2).
- 1905 (2) Four (4) inch diameter PVC pipe meeting ASTM D 2729-11**21**.
- 1906 (3) Four (4) inch diameter smooth interior wall polyethylene pipe meeting ASTM F 810-07**12(2024)** or AASHTO M252-
- 1907 **0923** Type SP.
- 1908 (d) Gravity distribution laterals shall have two (2) or three (3) rows of holes separated by one hundred twenty (120)
- 1909 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.
- 1910 (e) Pipe for subsurface drainage systems shall meet the following standards for polyethylene pipe:
- 1911 ~~(1) ASTM F 405-05.~~
- 1912 ~~(2) (1) ASTM F 667-12~~ **(2021).**
- 1913 ~~(3) (2) NRCS 606, September 2003~~ **2022.**

1915 *(Indiana Department of Health; 410 IAC 6-10.1-75; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*

1916 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1918 SECTION 71. 410 IAC 6-10.1-76 IS AMENDED TO READ AS FOLLOWS:

1920 410 IAC 6-10.1-76 Aggregate specifications

1921 Authority: IC 16-19-3-4

1922 Affected: IC 16-19-3-4

1923

1924 Sec. 76. (a) Aggregate to be used in soil absorption systems shall be gravel, stone, or other materials listed by the

1925 department. Crushed limestone aggregate, if used, shall be rated as forty percent (40%) or less on the Los Angeles abrasion quality

1926 requirement of the INDOT ~~2012~~ **2024** Standard Specifications, Section 904, Aggregates.

1927 (b) Aggregate:

- 1928 (1) shall be a mixture with no aggregate smaller in size than one-half (1/2) inch in diameter nor any aggregate larger than

1929 two and one-half (2 1/2) inches in diameter; and

1930 (2) must be larger than the openings in the gravity distribution laterals.

1931 (c) Tire chips may be used in place of stone for soil absorption systems on a one-for-one basis, volumetrically. Tire chips  
1932 used for soil absorption systems must have a nominal size of two (2) inches with chip dimensions being not less than one-half  
1933 (1/2) inch and not greater than four (4) inches.

1934 (d) Fines, sand, and clay shall be removed from the aggregate prior to its placement in the trench.

1935  
1936 *(Indiana Department of Health; 410 IAC 6-10.1-76; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1937 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1938  
1939 SECTION 72. 410 IAC 6-10.1-77 IS AMENDED TO READ AS FOLLOWS:

1940  
1941 410 IAC 6-10.1-77 Barrier materials

1942 Authority: IC 16-19-3-4

1943 Affected: IC 16-19-3-4

1944  
1945 Sec. 77. (a) The physical characteristics of barrier materials shall have the following minimum average roll values  
1946 ~~(MARV)~~:

1947 (1) A grab tensile strength equal to or greater than eighty (80) pounds in machine direction (MD) and cross-machine  
1948 direction (CD) in accordance with ASTM D 4632-~~08~~**15a(2023)**.

1949 (2) A grab tensile elongation ~~@~~at break of equal to or greater than fifty percent (50%) in MD and CD in accordance with  
1950 ASTM D 4632-~~08~~**15a(2023)**.

1951 (3) A trapezoidal tear strength equal to or greater than thirty (30) pounds in MD and CD in accordance with ASTM D  
1952 4533-~~11~~**15(2023)**.

1953 (4) A CBR puncture resistance equal to or greater than one hundred seventy-five (175) pounds in accordance with ASTM  
1954 D 6241-~~04 (Reapproved 2009)~~**22a**.

1955 (5) A permittivity of equal to or greater than 0.5 sec<sup>-1</sup> in accordance with ASTM D 4491-~~99a (Reapproved 2009)~~**22**.

1956 (6) A water flow rate equal to or greater than one hundred fifty (150) gallons per minute per square foot in accordance  
1957 with ASTM ~~D 4355-07~~**D 4491-22**.

1958 (7) A UV resistance at five hundred (500) hours equal to or greater than seventy percent (70%) strength retained in  
1959 accordance with ASTM D 4491-~~99a (Reapproved 2009)~~**D 4355-21**.

1960 (8) An apparent opening size (AOS) (U.S. Sieve) equal to or greater than forty (40) and equal to or less than seventy (70)  
1961 sieve in accordance with ASTM D 4751-~~04~~**21a**.

1962 (b) The chemical characteristics of barrier materials shall be:

1963 (1) nonbiodegradable;

1964 (2) resistant to acids and alkalis within a pH range of four (4) to ten (10); and

1965 (3) resistant to common solvents.

1966  
1967 *(Indiana Department of Health; 410 IAC 6-10.1-77; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
1968 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

1969  
1970 SECTION 73. 410 IAC 6-10.1-78 IS AMENDED TO READ AS FOLLOWS:

1971  
1972 410 IAC 6-10.1-78 Subsurface trench on-site sewage system site suitability

1973 Authority: IC 16-19-3-4

1974 Affected: IC 16-19-3-4

1975  
1976 Sec. 78. (a) On-site sewage system feasibility, location, and selection shall be based on the:

1977 (1) site evaluation;

1978 (2) information obtained from the on-site soils evaluation; and

1979 (3) DDF.

1980 If site conditions are acceptable, subsurface trench soil absorption systems are the systems of choice.

1981 (b) All of the following site conditions in this section must be met if subsurface trench on-site sewage systems are to be  
1982 constructed:

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

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

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

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

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

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

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

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

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

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

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

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

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

Table V – Soil Loading Rates for Subsurface Trench On-Site Sewage Systems (in gpd/ft <sup>2</sup> )								
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 <sup>1</sup>	Fragic Characteristics: Very Coarse Prismatic	Structureless, Massive, Friable, V. Friable	Structureless, Massive, Compact, Firm, V. Firm; Platy <sup>2</sup>
Gravel, Coarse Sand	>1.20	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Loamy Coarse Sand, Medium Sand	1.20	1.20	N/A	N/A	1.20	N/A	N/A	N/A
Fine Sand, Loamy Sand, Loamy Fine Sand	0.75	0.60	N/A	0.75	0.75	N/A	0.75	N/A
Very Fine Sand, Loamy V. Fine Sand	0.50	0.50	N/A	0.75	0.60	N/A	0.60	N/A
Sandy Loam, Coarse Sandy Loam	N/A	0.75	N/A	0.60	0.60	0.00	0.60	0.00
Fine Sandy Loam, V. Fine	N/A	0.75	N/A	0.60	0.60	0.00	0.60	0.00

Sandy Loam								
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								
<sup>1</sup> Naturally occurring platy structure.								
<sup>2</sup> Platy structure caused by mechanical compaction has a soil loading rate of 0.00 gpd/ft <sup>2</sup> unless broken up by methods approved by the department.								

- (c) Subsurface trench soil absorption systems shall 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 74. 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

Sec. 79. (a) On-site sewage system feasibility, location, and selection shall 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 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**. ~~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

2045 (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical  
2046 bulletins, and handbooks of the NRCS guidelines and as approved by the department;

2047 (C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments  
2048 by volume; or

2049 (D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse  
2050 fragments by volume; and

2051 (4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed  
2052 with a total absorption trench length that does not exceed five hundred (500) lineal feet.

2053 (c) A subsurface trench gravity on-site sewage system may also be constructed if the:

2054 (1) DDF of the proposed on-site sewage system is less than four hundred fifty (450) gallons per day;

2055 (2) site has a soil loading rate of equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot  
2056 and equal to or less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table V in  
2057 section 78(b)(8)(7) of this rule;

2058 (3) trench bottoms will be at least twenty-four (24) inches above any **limiting layer; and** horizon with:

2059 (A) a soil loading rate less than twenty five hundredths (0.25) gallons per day per square foot or greater than  
2060 seventy five hundredths (0.75) gallons per day per square foot;

2061 (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with  
2062 a ten percent (10%) hydrochloric acid solution, unless:

2063 (i) the on site soils evaluation report shows that the presence of the horizon is not detrimental to the  
2064 proper functioning of an on site sewage system; and

2065 (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical  
2066 bulletins, and handbooks of the NRCS guidelines and as approved by the department;

2067 (C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments  
2068 by volume; or

2069 (D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse  
2070 fragments by volume; and

2071 (4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed  
2072 with a total absorption system trench length that does not exceed five hundred (500) lineal feet.

2073 (d) A subsurface trench on-site sewage system that utilizes alternating fields or is dosed using pump assisted distribution  
2074 may be constructed if the:

2075 (1) soil loading rate of the site is equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot  
2076 and equal to or less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table V in  
2077 section 78(b)(8)(7) of this rule; and

2078 (2) trench bottoms will be at least twenty-four (24) inches above any **limiting layer.** horizon with:

2079 (A) a soil loading rate less than twenty five hundredths (0.25) gallons per day per square foot;

2080 (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with  
2081 a ten percent (10%) hydrochloric acid solution, unless:

2082 (i) the on site soils evaluation report shows that the presence of the horizon is not detrimental to the  
2083 proper functioning of an on site sewage system; and

2084 (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical  
2085 bulletins, and handbooks of the NRCS guidelines and as approved by the department;

2086 (C) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments  
2087 by volume; or

2088 (D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse  
2089 fragments by volume.

2090 (e) If any soil absorption system, including either half of an alternating field on-site sewage system, is designed with a  
2091 total absorption trench length greater than five hundred (500) lineal feet, the absorption system shall be dosed using pump assisted  
2092 distribution.

2093 (f) If any soil horizon within twenty-four (24) inches of the proposed trench bottom has a soil loading rate of one and  
2094 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-  
2095 site sewage system shall utilize pressure distribution.

2096  
2097 *(Indiana Department of Health; 410 IAC 6-10.1-79; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed*  
2098 *Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*

2099 SECTION 75. 410 IAC 6-10.1-80 IS AMENDED TO READ AS FOLLOWS:  
 2100  
 2101

2102 410 IAC 6-10.1-80 Elevated sand mound on-site sewage system site suitability  
 2103 Authority: IC 16-19-3-4  
 2104 Affected: IC 16-19-3-4  
 2105

2106 Sec. 80. (a) On-site sewage system feasibility, location, selection, and design shall be based on the:

- 2107 (1) site evaluation;
- 2108 (2) information obtained from the on-site soils evaluation; and
- 2109 (3) DDF.

2110 (b) Elevated sand mound on-site sewage systems may be constructed if the following site conditions are met:

2111 (1) Sufficient area exists on the lot for an appropriately sized elevated sand mound on-site sewage system, while meeting  
 2112 the:

- 2113 (A) separation distances of section 61 of this rule; and
- 2114 (B) dispersal area requirements of section 62 of this rule.

2115 (2) The topographic position of the site on which the elevated sand mound on-site sewage system is to be built is convex,  
 2116 hill slope, or flat. If surface and subsurface drainage can be diverted around the site, a toe slope position can be utilized.

2117 (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  
 2118 less.

2119 (4) Site conditions permit any seasonal high water table at the site of the proposed elevated sand mound on-site sewage  
 2120 system to be lowered to at least twenty (20) inches below original grade, in accordance with section 63 of this rule.

2121 (5) When **there is no limiting layer soil horizon** from the ground surface to twenty (20) inches below the ground surface,  
 2122 ~~in a soil developed from Wisconsin glacial till shows effervescence when treated with a ten percent (10%) hydrochloric~~  
 2123 ~~acid solution, unless:~~

2124 ~~(A) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper~~  
 2125 ~~functioning of an on-site sewage system; and~~

2126 ~~(B) the determination in clause (A) is made using the guidelines as set forth in the soil manuals, technical~~  
 2127 ~~bulletins, and handbooks of the NRCS guidelines and as approved by the department.~~

2128 (6) When there are no soil horizons from the ground surface to twenty (20) inches below the ground surface with:

2129 (A) less than twenty percent (20%) clay by volume and greater than thirty five percent (35%) coarse fragments  
 2130 by volume; or

2131 (B) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse  
 2132 fragments by volume.

2133 (7) ~~(6)~~ All soil horizons from the original grade to twenty (20) inches below the original grade have a soil loading rate of  
 2134 not less than twenty-five hundredths (0.25) gallons per day per square foot and not more than one and twenty-hundredths  
 2135 (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 <sup>2</sup> )								
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 <sup>1</sup>	Fragic Characteristics: Very Coarse Prismatic	Structureless, Massive, Friable, V. Friable	Structureless, Massive, Compact, Firm, V. Firm; Platy <sup>2</sup>
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,	0.60	0.60	N/A	0.60	0.60	N/A	0.60	N/A

Loamy Fine Sand								
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								
<sup>1</sup> Naturally occurring platy structure								
<sup>2</sup> Platy structure caused by compaction has a soil loading rate of 0.00 gpd/ft <sup>2</sup> unless broken up by methods approved by the department.								

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- (c) Elevated sand mound soil absorption systems shall 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 76. 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 <sup>1</sup> (Sec. 78, 79)		Flood Dosing or Alt. Fields <sup>1</sup> (Sec. 78, 79)	Flood Dosing <sup>1</sup> (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 <sup>2</sup>	≥ 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 <sup>2</sup>	≥ 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 <sup>2</sup>	≥ 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 <sup>3</sup>	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Soil Horizon with < 20% Clay and > 35% Coarse Fragments by Volume	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Soil Horizon with > 20% Clay and > 60% Coarse Fragments by Volume	≥ 30	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Distance from Trench Bottom (Ground Surface for Mounds) to Seasonal High Water Table <sup>2</sup>	≥ 24	≥ 24	≥ 24	≥ 24	≥ 24	≥ 20
Total Lineal Feet of Trench	≤ 500	≤ 500	≤ 500 for Alt. Fields	Any	Any	N/A

<sup>1</sup>These conditions are also suitable for subsurface trench pressure distribution on-site sewage systems.

<sup>2</sup>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.

<sup>3</sup>See Sections 62(a)(2)(~~E~~), 78(b)(6), 79(b)(3)(~~B~~), 79(c)(3)(~~B~~), 79(d)(2)(~~B~~) and 80(b)(5).

This chart does not include considerations such as the specific landscape features that must be met, the size of the soil absorption system, the size of the area necessary for construction of the soil absorption system on the contour with necessary setback and separation distances, dispersal area, the diversion of surface drainage, the feasibility of subsurface drainage, the ability to obtain easements, etc.

This chart does not take into consideration the necessity to pump the effluent to overcome differences in elevation (when a subsurface trench gravity system might otherwise be constructed).

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(Indiana Department of Health; 410 IAC 6-10.1-81; filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); errata filed Dec 12, 2012, 2:16 p.m.: [20121226-IR-410120157ACA](#); readopted filed Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))

SECTION 77. 410 IAC 6-10.1-82 IS AMENDED TO READ AS FOLLOWS:

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

Authority: IC 16-19-3-4

Affected: IC 16-19-3-4

Sec. 82. (a) The minimum absorption area (in square feet) required for each subsurface trench soil absorption system shall be based on the following:

(1) The DDF.

(2) The appropriate soil loading rate (in gallons per day per square foot) determined from Table V in section 78(b)(~~8~~)(7) of this rule. The soil loading rate used for this computation shall be the soil loading rate of the most restrictive horizon in the first twenty-four (24) inches below the trench bottom.

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

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

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

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

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

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

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

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

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

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

(A) Sandy loam.

(B) Silt loam.

(C) Loam.

(D) Clay loam.

(E) Silty clay loam.

(F) Sandy clay.

(G) Silty clay.

(H) Clay.

(2) Sufficient samples shall be evaluated throughout the soil absorption system site, from the soil surface to the proposed

2203 depth of the soil absorption system trench bottoms, to assure that the plastic limit of the soil is not exceeded.

2204 (3) The plastic limit of a soil shall be considered to have been exceeded when the soil can be rolled between the palms  
2205 of the hands to produce threads one-eighth (1/8) inch in diameter without breaking apart and crumbling.

2206 ~~(f)~~ (g) Vegetation at the soil absorption system site that would interfere with the soils evaluation, system layout, or system  
2207 construction shall be cut and removed prior to installation without causing compacted soil material.

2208 ~~(g)~~ (h) If trees are present within the proposed soil absorption system:

2209 (1) soil absorption trenches may be routed around trees provided the trenches follow the contour of the site; or

2210 (2) tree stumps and root balls may be removed provided the resulting excavation will not exceed the permit requirements  
2211 for width and depth of the soil absorption trench.

2212 ~~(h)~~ (i) Excessive smearing of the usable absorption trench sidewalls or bottom during construction may:

2213 (1) result in irreversible damage to the soil infiltrative surface; and

2214 (2) be grounds for rejection of the site or the on-site sewage system, or both.

2215 ~~(i)~~ (j) The ~~commercial~~ **building** sewer shall be a minimum of four (4) inches in diameter. Four (4) inch sewers shall be  
2216 installed with a positive slope of:

2217 (1) not less than four (4) inches in twenty-five (25) feet; and

2218 (2) not more than thirty-six (36) inches in twenty-five (25) feet.

2219 ~~(j)~~ (k) A six (6) inch ~~commercial~~ **building** sewer, if utilized, shall be installed with a positive slope of:

2220 (1) not less than two (2) inches in twenty-five (25) feet; and

2221 (2) not more than thirty-six (36) inches in twenty-five (25) feet.

2222 ~~(k)~~ (l) A vertical drop may be installed in a ~~commercial~~ **building** sewer. Each vertical drop shall have a cleanout located  
2223 immediately upslope.

2224 ~~(l)~~ (m) Effluent sewers shall meet the following requirements:

2225 (1) Effluent sewers shall be a minimum of four (4) inches in diameter.

2226 (2) Effluent sewer pipe shall have a positive grade of at least two and four-tenths (2.4) inches per one hundred (100) feet  
2227 or a grade of two-tenths percent (0.2%).

2228 ~~(m)~~ (n) All sewer and effluent sewer joints shall be sealed according to the manufacturer's recommendations in order to  
2229 be watertight and to withstand the pressures exerted on them.

2230 ~~(n)~~ (o) The absorption trenches of a subsurface trench soil absorption system shall be constructed along the contour.

2231 ~~(o)~~ (p) The minimum depth from original grade to the bottom of a trench of a subsurface trench soil absorption system  
2232 shall not be less than ten (10) inches, and the maximum depth from final grade to the bottom of a trench of a subsurface trench  
2233 soil absorption system shall not be more than thirty-six (36) inches.

2234 ~~(p)~~ (q) All subsurface trench soil absorption systems shall be designed to utilize trenches with a minimum width of  
2235 eighteen (18) inches and a maximum trench width of thirty-six (36) inches.

2236 ~~(q)~~ (r) There shall be a minimum separation of seven and one-half (7 1/2) feet, on center, between soil absorption system  
2237 trenches, measured perpendicular to the trenches.

2238 ~~(r)~~ (s) No single absorption trench in a subsurface trench soil absorption system shall exceed one hundred (100) feet in  
2239 length, except for subsurface trench pressure distribution on-site sewage systems.

2240 ~~(s)~~ (t) Each trench and distribution lateral in a subsurface trench soil absorption system shall be uniformly level  
2241 throughout its length and width.

2242 ~~(t)~~ (u) The distal ends of distribution laterals and trenches shall not be tied together.

2243 ~~(u)~~ (v) The distal end of each distribution lateral shall be capped, with the cap joint sealed according to the manufacturer's  
2244 recommendations in order to be watertight and to withstand the pressures exerted on it.

2245 ~~(v)~~ (w) Perforated pipe distribution laterals in the absorption trench of a subsurface trench soil absorption system shall  
2246 be completely surrounded by aggregate that meets the specifications in section 76 of this rule. There shall be at least six (6) inches  
2247 of aggregate below the pipe.

2248 ~~(w)~~ (x) The minimum depth of aggregate above the distribution laterals shall be:

2249 (1) two (2) inches throughout the entire length and width of trenches having a depth of twelve (12) inches or greater; or

2250 (2) two (2) inches above the distribution lateral for the entire length of trenches having a depth of ten (10) inches to  
2251 twelve (12) inches.

2252 ~~(x)~~ (y) The aggregate used in a subsurface trench soil absorption system shall be covered with a geotextile fabric barrier  
2253 in such a manner as to prevent the aggregate from becoming clogged with the earth fill. The barrier material shall:

2254 (1) meet the minimum requirements in section 77 of this rule;

2255 (2) be placed on the aggregate to prevent soil particle movement into the aggregate; and

2256 (3) cover the aggregate from side to side and from end to end.

2257 (z) A minimum of twelve (12) inches of cover shall be provided over the aggregate in the trenches, and any fill  
2258 required to provide cover shall be crowned over the entire soil absorption system to promote surface runoff.

2259 (z) (aa) Tire chips, if used for aggregate, will have protruding wires and shall be removed from the ground surface during  
2260 site cleanup.

2261  
2262 (Indiana Department of Health; 410 IAC 6-10.1-82; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; errata filed Dec  
2263 12, 2012, 2:16 p.m.: 20121226-IR-410120157ACA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;  
2264 readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

2265 SECTION 78. 410 IAC 6-10.1-87 IS AMENDED TO READ AS FOLLOWS:

2266 410 IAC 6-10.1-87 Elevated sand mound on-site sewage systems: design of the aggregate bed

2267 Authority: IC 16-19-3-4

2268 Affected: IC 16-19-3-4

2269 Sec. 87. (a) The size of the aggregate bed shall be determined from the following:

2270 (1) The minimum area of the aggregate bed shall be calculated as:

2271 
$$\text{minimum aggregate bed area (ft}^2\text{) (AB)} = \frac{\text{DDF Design Daily Flow (in gpd)}}{1.2 \text{ gpd/ft}^2}$$

2272 (2) The dimensions of the aggregate bed shall be as long and narrow as the site allows, while not exceeding the maximum  
2273 bed width calculated in subdivision (3)(A).

2274 (3) The maximum width of the aggregate bed shall meet the following requirements:

2275 (A) The maximum aggregate bed width (ft.)(ABQ) =

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$$0.83 \text{ ft}^2/\text{gpd} \times \sqrt{\frac{\text{DDF (gpd)} \times \text{SLR (gpd/ft}^2\text{)}}{n}}$$

2277 where 0.83 is a conversion factor (ft<sup>2</sup>/gpd)

2278 SLR is soil loading rate, and

2279 where: DDF is design daily flow, and

2280 n is determined by the DDF in this chart

2281 This number may be rounded down to the nearest whole number.

2282 (i) where: 0.83 is a conversion factor (ft<sup>2</sup>/gpd) and SLR is soil loading rate, and

2283 (ii) where: DDF is design daily flow, and n is determined by the DDF in this chart:

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

2286 (iii) This number may be rounded down to the nearest whole number.

2287 (B) For on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, the width of  
2288 the aggregate bed shall be at least four (4) feet and not greater than ten (10) feet. The aggregate bed width shall  
2289 not exceed the maximum bed width calculated in clause (A).

2290 (C) For on-site sewage systems with a DDF of greater than seven hundred fifty (750) gallons per day, the  
2291 following apply:

2292 (i) If the soil loading rate is fifty-hundredths (0.50) gallons per day per square foot (gpd/ft<sup>2</sup>) or less, the  
2293 width of the aggregate bed shall be not greater than fifteen (15) feet, and shall not exceed the maximum  
2294 bed width calculated in clause (A).

2295 (ii) If the soil loading rate is greater than fifty-hundredths (0.50) gallons per day per square foot  
2296 (gpd/ft<sup>2</sup>), the width of the aggregate bed shall be not greater than twenty (20) feet, and shall not exceed

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the maximum bed width calculated in clause (A).

(4) The minimum length of the aggregate bed shall be calculated as:

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

(5) The depth of the aggregate bed shall 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 be installed on the INDOT Specification 23 sand in the basal area, as listed in Table XVI in section 88(j) of this rule.

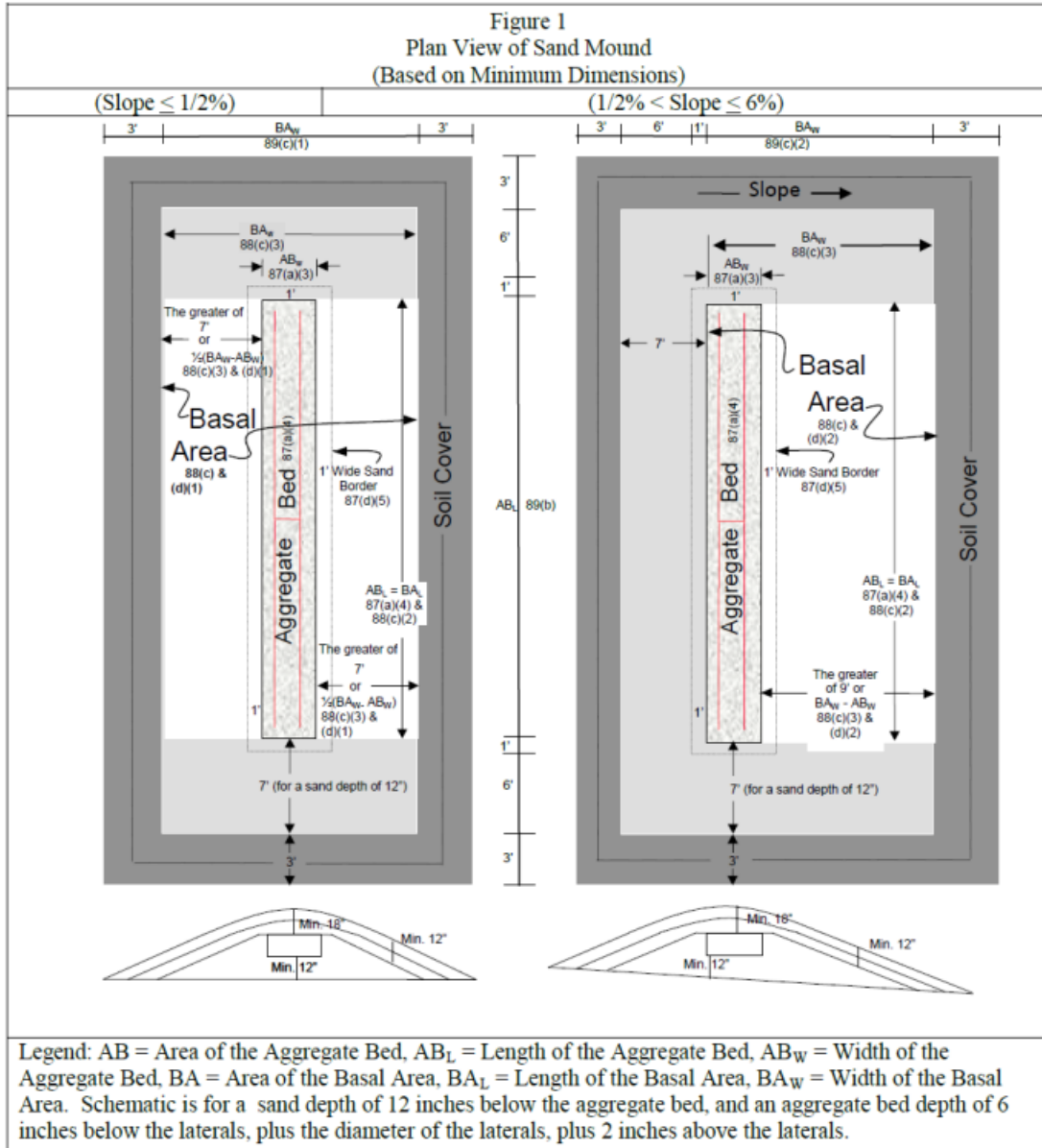
(c) The location of the aggregate bed shall be:

- (1) for sites with slopes of one-half percent (1/2%) 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 (1/2%) 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 comply with the following:

- (1) The long axis of the aggregate bed shall be constructed along the contours of the absorption system site.
- (2) The bottom of the aggregate bed shall be level along its length and width.
- (3) Aggregate used in the aggregate bed shall 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 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 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 79. 410 IAC 6-10.1-88 IS AMENDED TO READ AS FOLLOWS:

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

Sec. 88. (a) The dimensions of the basal area shall 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.

2333 (c) The size of the basal area shall be determined from the following:

2334 (1) The minimum size of the basal area shall be calculated as:

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

2335 using the soil loading rates from Table VI in section 80(b)(7)(6) of this rule. The soil loading rate used for this  
2336 computation shall be the soil loading rate of the most restrictive horizon in the first twenty (20) inches below the ground  
2337 surface.

2338 (2) The minimum length for the basal area (BA<sub>L</sub>) shall equal the length of the aggregate bed (AB<sub>L</sub>).

2339 (3) The minimum width of the basal area (BA<sub>W</sub>) shall be calculated as the greater of:

(A) Minimum basal area width =  $\frac{\text{minimum basal area (ft}^2\text{) (BA)}}{\text{length of aggregate bed (ft) (AB}_L\text{)}}$  ; or

(B)

Slope	Minimum Basal Area Width (BA <sub>W</sub> )
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 maintain a minimum sideslope grade of three-to-one (3:1).

2340 (d) The location of the basal area within the elevated sand mound shall be:

2341 (1) on sites with slopes of one-half percent (1/2%) or less, the area under the aggregate bed and extending an equal  
2342 distance from each side along the length of the aggregate bed; and

2343 (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  
2344 aggregate bed and extending directly downslope from the aggregate bed.

2345 (e) The design of the basal area shall be for:

2346 (1) sites with slopes one-half percent (1/2%) or less; or

2347 (2) sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%).

2348 (f) The basal area shall be constructed on the tilled surface of the soil absorption system site in accordance with the  
2349 provisions of section 94 of this rule.

2350 (g) The long axis of the basal area and elevated sand mound shall be constructed along the contour of the soil absorption  
2351 system site.

2352 (h) The minimum depth of the INDOT Specification 23 sand under the aggregate bed shall be twelve (12) inches.

2353 (i) The INDOT Specification 23 sand shall have a minimum final grade on all sides of three-to-one (3:1).

2354 (j) The INDOT Specification 23 sand used in the elevated sand mound shall 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.

2356 (k) Figure 1 in section 87(d) of this rule presents a visual depiction of the location of the basal area within the elevated  
2357 sand mound.

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2359  
2360 (Indiana Department of Health; 410 IAC 6-10.1-88; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; readopted filed  
2361 Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA; readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)

2362 SECTION 80. 410 IAC 6-10.1-98 IS AMENDED TO READ AS FOLLOWS:  
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2364 410 IAC 6-10.1-98 Abandonment of an on-site sewage system  
2365 Authority: IC 16-19-3-4  
2366 Affected: IC 16-19-3-4  
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2369 Sec. 98. (a) **The department or local health department shall issue a permit and require an inspection for the**  
2370 **abandonment of an on-site sewage system in accordance with section 53(a)(9) of this rule.**

2371 ~~(a)~~ **(b)** When the use of an on-site sewage system is discontinued, the following procedure must be followed for all tanks  
2372 and electrical service:

- 2373 (1) Electrical power must be disconnected at the source. All controls and panels must be removed.
- 2374 (2) All above ground electrical lines that will not be used for other purposes must be removed.
- 2375 (3) A licensed **septage management vehicle** ~~septic tank cleaner~~ ~~wastehauler~~ ~~must~~ **shall** pump all contents from all tanks  
2376 **and distribution boxes** in the on-site sewage system.
- 2377 (4) The tanks must ~~either be:~~
  - 2378 (A) ~~removed or the~~ **have their** lids crushed into the tanks and the holes or tanks must be backfilled with debris-  
2379 free sand or other granular material, concrete, or soil material that is compacted to prevent settling. (If a sand  
2380 mound is being abandoned, sand, aggregate and soil cover from the sand mound may be used for filling the tank  
2381 or tanks); ~~or~~
  - 2382 (B) **be filled with flowable fill;** ~~or~~
  - 2383 **(C) be removed and disposed of at a licensed landfill.**

2384 (5) Properly grade and establish vegetative cover.  
2385 ~~(b)~~ **(c)** **If there are no plans to use the area for other purposes, the** The components of the soil absorption system may  
2386 be left intact, ~~if there are no plans to use the area for other purposes.~~ Vegetative cover must be maintained.

2387 ~~(e)~~ **(d)** If effluent has surfaced, those areas must be covered with hydrated lime followed by top soil and a vegetative  
2388 cover.

2389 ~~(d)~~ **(e)** If components of the soil absorption system are to be removed, the following procedure must be used:

- 2390 ~~(1) A licensed septic tank cleaner must pump all contents from all distribution boxes in the on-site sewage system.~~
- 2391 ~~(2)~~ **(1)** Allow sufficient time after the on-site sewage system is taken out of service and the tanks pumped to make sure  
2392 the entire soil absorption system is completely dry.
- 2393 ~~(3)~~ **(2)** A contractor must remove the distribution network, aggregate and sand (if any) from the site **all piping, chambers,**  
2394 **and distribution boxes and dispose of these materials at a licensed landfill.**
- 2395 ~~(4) The contractor must dispose of the materials at a licensed landfill.~~
- 2396 **(3) Any aggregate, sand, and soil cover material may be used for fill material, including filling of abandoned tanks,**  
2397 **after it has been allowed to sufficiently dry**
- 2398 ~~(5)~~ **(4)** The site must be properly graded and a vegetative cover established.
- 2399 ~~(e)~~ **(f)** Written documentation of tank **pumping and system** abandonment must be provided to the department and the  
2400 local health department by the owner in the form of a receipt from the contractor **and landfill, if used.**

2401  
2402 *(Indiana Department of Health; 410 IAC 6-10.1-98; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Apr 17,*  
2403 *2014, 10:10 a.m.: 20140514-IR-410130351FRA; readopted filed Sep 26, 2018, 2:48 p.m.: 20181024-IR-410180328RFA;*  
2404 *readopted filed Nov 14, 2024, 1:24 p.m.: 20241211-IR-410230798RFA)*  
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2406 SECTION 81. 410 IAC 6-10.1-99 IS AMENDED TO READ AS FOLLOWS:

2407 410 IAC 6-10.1-99 Matters incorporated by reference  
2408 Authority: IC 16-19-3-4  
2409 Affected: IC 16-19-3-4  
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2412 Sec. 99. (a) Bulletin SE 11, "The Sanitary Vault Privy", ~~1986~~ **2021** Edition, is incorporated by reference as part of this  
2413 rule. It is available at the department at 2 North Meridian Street, Indianapolis, ~~Indiana~~ **IN** 46204.

2414 (b) NSF/ANSI Standard 40-~~2010~~ **2023** and Standard 46-~~2010a~~ **2020** are incorporated by reference as part of this rule. Two  
2415 (2) copies of each standard are available for reference in the files of the department. Copies of the standards may be obtained by

2416 mailing a request to the National Sanitation Foundation, 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, Michigan MI  
2417 48113-0140, or at:

2418 [www.techstreet.com/cgi-bin/joint.cgi/nsf](http://www.techstreet.com/cgi-bin/joint.cgi/nsf)

2419 (c) ASTM Standards C 923-08**20(2025)**, C 990-09**25**, C 1644-06**24**, ~~D 1527-99 (Reapproved 2005)~~, D 1785-06**21a**, D 2241-  
2420 09**25a**, ~~D 2282-99 (Reapproved 2005)~~, D 2661-11**24**, D 2665-12**25**, D 2680-**20(2025)**~~01 (Reapproved 2009)~~, D 2729-11**21**, ~~D~~  
2421 ~~2751-05~~, D 3034-08**24c1**, D 4355-07**21**, D 4491-99a (Reapproved 2009)**22**, D 4533-11**15(2023)**, D 4632-08**15a(2023)**, D 4751-  
2422 04**21a**, D 6241-22a04 (Reapproved 2009), F 405-05, F 480-12**25**, F 667-12**16(2021)**, F 810-07**12(2024)**, and ~~F 891-10 D~~ **3035-**  
2423 **22, F 2620-24 and C 1116-23** are incorporated by reference as part of this rule. Two (2) copies of each standard are available  
2424 for reference in the files of the department. ASTM standards may be obtained at:

2425 <http://www.astm.org/Standard/index.shtml>

2426 (d) AASHTO Standard ~~M 252-09~~ **M252-23** is incorporated by reference as part of this rule. Two (2) copies of the standard  
2427 are available for reference in the files of the department. This standard may be obtained at:  
2428 <https://store.transportation.org/Item/PublicationDetail?ID=5093>.

2429 <http://www.transportation.org>

2430 (e) NRCS Standard 606, ~~September 2003~~ **July 2022** is incorporated by reference as part of this rule. Two (2) copies of  
2431 the standard are available for reference in the files of the department. This standard may be obtained at:

2432 <https://www.nrcs.usda.gov/resources/guides-and-instructions/subsurface-drain-ft-606-conservation-practice-standard>

2433 <http://efotg.nrcs.usda.gov/references/public/AL/tg606.pdf>

2434 (f) INDOT ~~2012~~ **2024** Standard Specifications, Section 904, Aggregates is incorporated by reference as part of this rule. Two (2)  
2435 copies of the standard are available for reference in the files of the department. The standard may be obtained at:

2436 <http://www.in.gov/dot/div/contracts/standards/book/sep11/sep.htm> <https://www.in.gov/indot/files/2012Master.pdf>

2437 (g) NEMA 250-2008**2020** is incorporated by reference as part of this rule. Two (2) copies of the standard are available  
2438 for reference in the files of the department. The standard may be obtained at

2439 [http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-](http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-66a368CFSWFQAodmii-A)  
2440 ~~66a368CFSWFQAodmii-A~~ <https://webstore.ansi.org/standards/nema/nema2502008>.

2441 (h) IAPMO Z1000-2019, Prefabricated Septic Tanks, is incorporated by reference as part of this rule. Two (2)  
2442 copies of the standard are available for reference in the files of the department. The standard may be obtained at:

2443 [https://webstore.ansi.org/SDO/IAPMO?gclid=EA1aIqobChMI-8P-](https://webstore.ansi.org/SDO/IAPMO?gclid=EA1aIqobChMI-8P-vZLJQIVn8mUCR2xTQxTEAAYASAAEgJ9K_D_BwE)

2444 ~~vZLJQIVn8mUCR2xTQxTEAAYASAAEgJ9K\_D\_BwE~~.

2445 (i) Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Surveys, Second  
2446 Edition, USDA, 1999. Document may be obtained at:

2447 <https://nrcspad.sc.egov.usda.gov/DistributionCenter/pdf.aspx?productID=703>.

2448  
2449 (Indiana Department of Health; [410 IAC 6-10.1-99](#); filed Oct 19, 2012, 2:07 p.m.: [20121114-IR-410120157FRA](#); readopted filed  
2450 Sep 26, 2018, 2:48 p.m.: [20181024-IR-410180328RFA](#); readopted filed Nov 14, 2024, 1:24 p.m.: [20241211-IR-410230798RFA](#))  
2451