

## ARTICLE 6. SANITARY ENGINEERING

### Rule 1. Sewer Use; Cities and Towns

#### 410 IAC 6-1-1 Sewerage systems in incorporated cities and towns; orders for construction and use

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 1. Requiring the Construction and Use of Sewers and Sewerage Facilities in Incorporated Cities and Incorporated Towns. (1) Whenever investigation by the State Board of Health shall show that the lack of proper and adequate sewers and sewerage facilities in an incorporated city or town results in insanitary conditions, which may cause nuisances or produce conditions causative of disease, and that the construction of a proper and adequate sewerage system will abate and is a practical method to abate such insanitary conditions, said incorporated city or town shall, upon the issuance of an official order by the State Board of Health, immediately proceed with the construction of such sewers, interceptors, sewage treatment works, and such other parts and appurtenances of a sewerage system, as may be necessary to abate the insanitary conditions causative of disease and to protect the public health.

(2) When an investigation made by the State Board of Health in any incorporated city or town shows the municipal sewerage facilities are available and that conditions causative of disease result from failure to make use of such facilities, the board of trustees or common council of said city or town, upon issuance of an official order by the State Board of Health, shall immediately require that connections be made to the sewerage system or that the use of privies, cesspools, septic tanks or other means of sewage disposal, other than the municipal sewerage system, be discontinued.

(3) Provided, that such official order shall not be issued by the State Board of Health until after an opportunity for a hearing has been given to the proper officials of such incorporated city or town, at which hearing the facts as shown by the investigation made by the State Board of Health shall be presented to said proper officials. (*Indiana State Department of Health; Reg HSE 10; filed Oct 18, 1945, 10:30 am: Rules and Regs. 1947, p. 1294; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA*) NOTE: HSE 1 through 9 transferred to Environmental Management Board by IC 13-7-6-1.

### Rule 2. Swimming and Wading Pool Operations

#### 410 IAC 6-2-0.1 Applicability (Repealed)

Sec. 0.1. (*Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334*)

#### 410 IAC 6-2-0.2 "Air gap" defined (Repealed)

Sec. 0.2. (*Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334*)

#### 410 IAC 6-2-0.3 "Competition pool" defined (Repealed)

Sec. 0.3. (*Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334*)

#### 410 IAC 6-2-0.4 "Department" defined (Repealed)

Sec. 0.4. (*Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334*)

#### 410 IAC 6-2-0.5 "Diving pool" defined (Repealed)

Sec. 0.5. (*Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334*)

#### 410 IAC 6-2-0.6 "mg/l" defined (Repealed)

Sec. 0.6. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-0.7 "Pools with wading areas" defined (Repealed)**

Sec. 0.7. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1 "Public swimming pool" defined (Repealed)**

Sec. 1. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1.1 "Public wading pool" defined (Repealed)**

Sec. 1.1. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1.2 "Turnover rate" defined (Repealed)**

Sec. 1.2. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1.3 "Wave pool" defined (Repealed)**

Sec. 1.3. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1.4 "Zero depth pool" defined (Repealed)**

Sec. 1.4. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-1.5 Swimming pool construction (Repealed)**

Sec. 1.5. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-2 Water supply; plumbing fixtures (Repealed)**

Sec. 2. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-3 Sewer system; drains (Repealed)**

Sec. 3. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-4 Depth markings (Repealed)**

Sec. 4. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-5 Visitor and spectator areas; food and drink areas (Repealed)**

Sec. 5. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-6 Safety requirements; supervision; lifesaving/lifeguarding equipment (Repealed)**

Sec. 6. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-7 Disinfection; water quality (Repealed)**

Sec. 7. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-8 Suits and towels; cleaning (Repealed)**

Sec. 8. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-9 Public swimming pools and wading pools; cleaning (Repealed)**

Sec. 9. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-10 Records of operation; supervision; injuries; drownings (Repealed)**

Sec. 10. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-11 Supervision; personal conduct (Repealed)**

Sec. 11. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**410 IAC 6-2-12 Severability (Repealed)**

Sec. 12. *(Repealed by Indiana State Department of Health; filed Feb 12, 1993, 5:00 p.m.: 16 IR 1803)*

**410 IAC 6-2-13 Incorporation by reference (Repealed)**

Sec. 13. *(Repealed by Indiana State Department of Health; filed May 19, 2003, 8:30 a.m.: 26 IR 3334)*

**Rule 2.1. Public and Semi-Public Pools**

**410 IAC 6-2.1-1 Applicability**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 1. The definitions in this rule apply throughout this rule. *(Indiana State Department of Health; 410 IAC 6-2.1-1; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-2 "Air gap" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 2. "Air gap":

(1) means the unobstructed vertical distance through atmosphere between the water supply inlet and the flood level rim of the receiving unit; and

(2) is at least two (2) times the diameter of the water supply outlet or pipe or six (6) inches, whichever is the smaller distance. *(Indiana State Department of Health; 410 IAC 6-2.1-2; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-3 "Bather load" defined**

Authority: IC 16-19-3-4

Affected: IC 16-1-3

Sec. 3. "Bather load" means the total number of bathers within the pool enclosure. (*Indiana State Department of Health; 410 IAC 6-2.1-3; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-4 "Breakpoint chlorination" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 4. "Breakpoint chlorination" means the point in a rising chlorine residual at which the concentration of available chlorine becomes great enough to completely oxidize all organic matter and ammonia compounds (combined chlorine) in a pool. (*Indiana State Department of Health; 410 IAC 6-2.1-4; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-5 "Competition pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 5. "Competition pool" means any pool intended for use for accredited competitive aquatic events. Competition pools may also be used for recreation and instruction. (*Indiana State Department of Health; 410 IAC 6-2.1-5; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-5.3 "CT inactivation value" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 5.3. "CT inactivation value" means the concentration (C) of free chlorine in ppm (or mg/L) multiplied by time (T) in minutes at a specific pH and temperature. (*Indiana State Department of Health; 410 IAC 6-2.1-5.3; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-5.6 "Deep areas" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 5.6. "Deep areas" means areas of the pool exceeding five (5) feet in depth. (*Indiana State Department of Health; 410 IAC 6-2.1-5.6; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-6 "Department" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 6. "Department" means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-2.1-6; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-7 "Diving pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 7. "Diving pool" means any pool that is designed and constructed primarily for diving and does not have a shallow end. *(Indiana State Department of Health; 410 IAC 6-2.1-7; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-7.3 "Full stomach vomit" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 7.3. "Full stomach vomit" for the purpose of this rule shall mean the emptying of all of the stomach's contents as a result of an illness as opposed to vomit from swallowing too much water, overexertion, or play. *(Indiana State Department of Health; 410 IAC 6-2.1-7.3; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-7.5 "Maximum bather load" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 7.5. "Maximum bather load" means the maximum usage of the pool calculated based on the following, whichever is applicable:

|                                                                     | Shallow or wading areas (A)                | Deep areas, not including diving areas (B) | Diving areas (per board) (C)                |
|---------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------|
| If the deck is less than the surface area of the pool               | 15 sq. ft. of pool surface area per bather | 20 sq. ft. of pool surface per bather      | 300 sq. ft. of pool surface area per bather |
| If the deck is equal to or larger than the surface area of the pool | 12 sq. ft. of pool surface area per bather | 15 sq. ft. of pool surface per bather      | 300 sq. ft. of pool surface per bather      |
| If the deck is twice the surface area of the pool                   | 8 sq. ft. of pool surface per bather       | 10 sq. ft. of pool surface per bather      | 300 sq. ft. of pool surface area per bather |

A+B+C= Maximum bather load. If the diving board(s) is closed, an additional 10 bathers are permitted. *(Indiana State Department of Health; 410 IAC 6-2.1-7.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-8 "mg/l" defined (Repealed)**

Sec. 8. *(Repealed by Indiana State Department of Health; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-9 "Person" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 9. "Person" means:

- (1) any individual, firm, partnership, company, corporation, trustee, association, municipality, county, authority, estate, or public or private entity; and
- (2) its or their successors, assigns, or agents.

*(Indiana State Department of Health; 410 IAC 6-2.1-9; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-10 "Plunge pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 10. "Plunge pool" means a pool located at the exit end of a waterslide flume and is intended and designed to receive sliders emerging the flume. (*Indiana State Department of Health; 410 IAC 6-2.1-10; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-11 "Pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 11. "Pool" means a structure, basin, chamber, or tank containing an artificial body of water for swimming, bathing, competition, relaxation, or recreational use. (*Indiana State Department of Health; 410 IAC 6-2.1-11; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-12 "Pools with wading areas" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 12. "Pools with wading areas" means any pool that has a portion of the shallow end with a maximum depth of twenty-four (24) inches. (*Indiana State Department of Health; 410 IAC 6-2.1-12; filed May 19, 2003, 8:30 a.m.: 26 IR 3325; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-12.5 "ppm" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 12.5. "ppm" means parts per million and is equivalent to milligrams per liter when the medium is water. (*Indiana State Department of Health; 410 IAC 6-2.1-12.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-13 "Public pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 13. "Public pool" means any pool, other than those pools defined as a semi-public pool, which is intended to be used for swimming or bathing and is operated by a concessionaire, owner, lessee, operator, or licensee, regardless of whether a fee is charged for use. Nothing in this article shall be construed as applying to any pool, constructed at a one (1) or two (2) family dwelling, and maintained by an individual for the sole use of the household and house guests. (*Indiana State Department of Health; 410 IAC 6-2.1-13; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-14 "Public sewer" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 14. "Public sewer" means a sewage disposal facility provided by a utility, municipality, conservancy district, or regional sewer district. (*Indiana State Department of Health; 410 IAC 6-2.1-14; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-15 "Public water supply" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 15. "Public water supply" means water supplied by a utility, municipality, conservancy district, regional water district, or water corporation. (*Indiana State Department of Health; 410 IAC 6-2.1-15; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-16 "Sanitary facilities" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 16. "Sanitary facilities" means flush toilets, hand washing lavatories, and showers. (*Indiana State Department of Health; 410 IAC 6-2.1-16; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-17 "Semi-public pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 17. "Semi-public pool" means any pool restricted for use by residents, members, or registered guests that is intended to be used for swimming or bathing and is operated solely for and in conjunction with:

- (1) hotels, motels, apartments, condominiums, bed and breakfasts, tourist homes, or similar facilities associated with lodgings;
- (2) camps or mobile home parks; or
- (3) membership clubs, churches, or associations.

Nothing in this article shall be construed as applying to any pool, constructed at a one (1) or two (2) family dwelling, and maintained by an individual for the sole use of the household and house guests. (*Indiana State Department of Health; 410 IAC 6-2.1-17; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-17.5 "Shallow areas" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 17.5. "Shallow areas" means those portions of a pool ranging in water depth from two (2) to five (5) feet. (*Indiana State Department of Health; 410 IAC 6-2.1-17.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-18 "Spa" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 18. "Spa" means a pool designed for recreational or therapeutic, or both, use, commonly known as a hot tub or therapy pool, that is not drained, cleaned, and refilled after each use. The term may include, but is not limited to:

- (1) hydrojet circulation;
- (2) hot water;
- (3) cold water;
- (4) mineral baths;
- (5) air induction systems; or

(6) any combination thereof.

*(Indiana State Department of Health; 410 IAC 6-2.1-18; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-18.5 "Standard Methods" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 18.5. "Standard Methods" means Standard Methods for the Examination of Water and Wastewater, twenty-first edition, published by the American Public Health Association, Inc., 2005, specifically Part 9000, Microbiological Examination of Water. *(Indiana State Department of Health; 410 IAC 6-2.1-18.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-19 "Swimming pool slide" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 19. "Swimming pool slide" means any device used to enter a pool by sliding down an inclined plane or equipment similar to a playground slide. *(Indiana State Department of Health; 410 IAC 6-2.1-19; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-19.3 "Tourist" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 19.3. "Tourist" means a person who has a home address somewhere else other than where he/she is spending the night. *(Indiana State Department of Health; 410 IAC 6-2.1-19.3; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-19.5 "Tourist home" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 19.5. "Tourist home" means a structure constructed as a single-family dwelling that is rented or otherwise contracted for overnight lodging to a tourist for more than three (3) times per year or more than ten (10) days per year, total. *(Indiana State Department of Health; 410 IAC 6-2.1-19.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-20 "Turnover rate" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 20. "Turnover rate" means the period of time, expressed in hours, required to circulate a volume of water equal to the maximum pool-water capacity through the pool-water treatment system. *(Indiana State Department of Health; 410 IAC 6-2.1-20; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-20.5 "Wading area" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 20.5. "Wading area" means those portions of the pool with water depth ranging from zero (0) to two (2) feet. *(Indiana State Department of Health; 410 IAC 6-2.1-20.5; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-21 "Wading pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 21. "Wading pool" means a pool used for bathing that has a maximum depth of two (2) feet. *(Indiana State Department of Health; 410 IAC 6-2.1-21; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-22 "Waterslide" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 22. "Waterslide" means a recreational ride that is a sloped trough-like or tubular structure using water as a lubricant and method of regulating rider velocity and terminates in a plunge pool, swimming pool, or a specifically designed deceleration structure. *(Indiana State Department of Health; 410 IAC 6-2.1-22; filed May 19, 2003, 8:30 a.m.: 26 IR 3326; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-23 "Wave pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 23. "Wave pool" means any pool having a bottom sloped upward from the deep end to the surface at the shallow end with equipment installed at the deep end to create wave motions in the water. *(Indiana State Department of Health; 410 IAC 6-2.1-23; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-24 "Zero depth pool" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 24. "Zero depth pool" means any pool with a bottom sloped upward from the deep end to the surface level at the shallow end. *(Indiana State Department of Health; 410 IAC 6-2.1-24; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-25 Administration of rule**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 25. (a) This rule may be administered by the department or by the local health officer through their authorized agent.

(b) Semi-public pools on the premises of a tourist home shall be operated and maintained in accordance with sections 26(b), 28(b), 42.1, and 44 of this rule.

(c) Semi-public spas on the premises of a tourist home shall be operated and maintained in accordance with sections 26(b), 28(b), 42.1, and 44 of this rule.

(d) A copy of this rule shall be kept on site at the facility. *(Indiana State Department of Health; 410 IAC 6-2.1-25; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-26 New construction**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 26. (a) Public and semi-public pools, excepting those on the premises of a tourist home, shall be designed, constructed, maintained, and modified in accordance with 675 IAC 20-2.

(b) Semi-public pools on the premises of a tourist home shall be designated, constructed, maintained, and modified in accordance with 675 IAC 20-4, excepting spas, which must be:

- (1) commercially manufactured, residential style spas; or
- (2) constructed in accordance with 675 IAC 20-3.

*(Indiana State Department of Health; 410 IAC 6-2.1-26; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-27 Water supply**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 27. (a) An adequate and convenient supply of potable water that meets the provisions of 327 IAC 8-2 shall be provided at plumbing fixtures used for:

- (1) drinking;
- (2) cooking;
- (3) dishwashing;
- (4) hand washing;
- (5) showering; and
- (6) pool water.

(b) Wells shall be constructed, installed, and located in accordance with 327 IAC 8-2 and 312 IAC 13.

(c) A public water supply shall be exclusively used if available within a reasonable distance. A water supply, properly located and constructed, shall be provided if a public water supply is not available.

(d) The construction and location of wells with fewer than fifteen (15) service connections, or serving fewer than twenty-five (25) people, shall comply with Bulletin S.E. 13. All other wells shall comply with 327 IAC 8-2.

(e) The water supply and distribution system shall have the capacity to deliver a minimum water pressure of twenty (20) pounds per square inch to all water connections during periods of peak water usage. The water supply shall have a capacity to meet total water demands. If a well or pump cannot meet a peak or daily demand, a sufficient useable storage capacity shall be provided.

(f) The casing pipe of a well shall extend not less than twenty-four (24) inches above floor level, finish grade, or the highest flood level on record.

(g) Water supplies shall have no:

- (1) wellhead;
- (2) well casing;
- (3) pump;
- (4) pumping machinery;
- (5) exposed pressure tanks; or
- (6) suction piping;

located in any pit, room, or enclosure that does not have free drainage by gravity to the ground surface at all times.

(h) Stop-and-waste valves (including unapproved frost-proof hydrants) or other devices that would allow aspiration or backflow of contaminated water into the potable system shall not be used.

(i) All portions of the water distribution system serving pools, and auxiliary facilities, shall be protected against backflow and backsiphonage. Water introduced into the pool, either directly or through the recirculation system, shall be supplied through an air gap or in accordance with 675 IAC 16. *(Indiana State Department of Health; 410 IAC 6-2.1-27; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-28 Sewage disposal**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 28. (a) The sewage disposal system shall be adequate to serve the facility, including the bathhouse, locker room, pool water treatment equipment, deck drains, and related accommodations.

(b) Pool water and filter backwash water may not discharge to a ditch, stream, or lake, except in accordance with 327 IAC 2-1.

(c) All pool gutters, recirculation systems, and overflows shall discharge through an air gap to preclude the possibility of a backup of sewage or waste into the pool or pool piping system.

(d) All pool sumps, deck drainage systems, and other drainage fixtures that discharge to a sewer or storm drain shall be properly trapped and vented to prevent sewer gases and odors from reaching the pool area.

(e) All sewage, including gray water, shall be disposed of via a connection to a public sewer, if available within a reasonable distance. If a public sewer is not available within a reasonable distance from the pool, sewage disposal must comply with 410 IAC 6-10, Bulletin S.E. 11, Bulletin S.E. 13, or applicable rules of the Indiana department of environmental management. (*Indiana State Department of Health; 410 IAC 6-2.1-28; filed May 19, 2003, 8:30 a.m.: 26 IR 3327; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

**410 IAC 6-2.1-29 Sanitary facilities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 29. (a) The ratio and location of sanitary facilities for public and semi-public pools shall be in accordance with 675 IAC 20-2-27.

(b) Sanitary facilities are not required poolside at semi-public pools if sanitary facilities are available to pool patrons within three hundred (300) feet of the pool enclosure.

(c) Toilet paper and covered waste receptacles shall be provided for toilet facilities.

(d) Soap, covered waste receptacles, and paper towels or electrical hand drying units shall be provided at the lavatories.

(e) Hot and cold water shall be provided through a mixing faucet. Hot water temperature shall:

(1) be at least ninety (90) degrees Fahrenheit; and

(2) not exceed one hundred twenty (120) degrees Fahrenheit.

(f) When showers are provided, the hot water temperature shall:

(1) be at least ninety (90) degrees Fahrenheit; and

(2) not exceed one hundred twenty (120) degrees Fahrenheit.

An approved, properly operating hot water control valve shall be installed on the hot water heater to prevent the hot water temperature from exceeding one hundred twenty (120) degrees Fahrenheit at the point of use. Soap shall be provided at any shower. Bar soap shall not be permitted.

(g) All sanitary facilities shall be maintained in a safe and sanitary condition. (*Indiana State Department of Health; 410 IAC 6-2.1-29; filed May 19, 2003, 8:30 a.m.: 26 IR 3328; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-30 Pool water chemistry**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 30. (a) All pools, when open for use, shall be continuously and automatically disinfected with a chemical that imparts an easily measured, free residual.

(b) A free residual of the disinfectant chemical shall be maintained throughout the pool at concentrations in accordance with the following:

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SANITARY ENGINEERING

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| POOL TYPE               | CHLORINE |         | BROMINE |          |
|-------------------------|----------|---------|---------|----------|
|                         | Minimum  | Maximum | Minimum | Maximum  |
| Wading pools            | 3.0 ppm  | 7.0 ppm | 4.0 ppm | 10.0 ppm |
| Spa pools               | 2.0 ppm  | 7.0 ppm | 4.0 ppm | 10.0 ppm |
| Waterslide plunge pools | 2.0 ppm  | 7.0 ppm | 3.0 ppm | 10.0 ppm |
| Wave pools              | 2.0 ppm  | 7.0 ppm | 3.0 ppm | 10.0 ppm |
| All other pools         | 1.0 ppm  | 7.0 ppm | 2.0 ppm | 10.0 ppm |

(c) Whenever the residual disinfectant:

- (1) falls below the minimum concentration required; or
- (2) exceeds the maximum concentration allowed;

the pool shall be cleared and kept free of bathers until disinfectant residuals are within the acceptable range.

(d) The department may accept other disinfecting materials or methods when the materials or methods have been demonstrated:

- (1) to provide a residual effect equivalent to halogens;
- (2) to be easily measured under conditions of use;
- (3) not to be dangerous to public health;
- (4) not to create objectionable physiological effects; or
- (5) not to impart toxic properties to the water.

(e) The pool water shall be superchlorinated to breakpoint or superoxidized with a nonchlorine oxidizer when the pool test kit reveals a combined chlorine (chloramine) concentration of five-tenths (0.5) parts per million (ppm) or greater.

(f) Chlorinated isocyanurates or stabilized chlorine shall not be used for breakpoint chlorination.

(g) The pool shall be closed and remain closed during breakpoint chlorination until the chlorine concentration drops to the maximum level referenced in subsection (b).

(h) If a nonchlorine oxidizer is used to superoxidize, the pool shall be closed and shall remain closed in accordance with the specifications on the product label.

(i) A test kit shall be readily available for use by the pool operator, with reagents replaced according to manufacturer's requirements, and meet the following:

(1) For pools that use chlorine as a disinfectant, a test kit shall be used that covers a minimum range of zero (0.0) ppm to five (5.0) ppm or higher. The test kit must be:

- (A) in increments of five-tenths (0.5) ppm; and
- (B) capable of measuring total chlorine.

(2) Orthotolidine may not be used as the disinfectant testing reagent.

(3) For pools that use a disinfectant other than chlorine, the test kit shall have the range and accuracy proportionate to the range required for chlorine test kits.

(4) A pH test kit:

- (A) accurate to the nearest two-tenths (0.2) pH unit; and
- (B) covering a minimum range of seven (7.0) to eight (8.0) pH units;

shall be used.

(5) When a cyanurate is used as a chlorine stabilizer, the test kit shall be capable of measuring cyanuric acid concentrations.

(6) A test kit capable of measuring total alkalinity shall be used.

(j) If chlorinated isocyanurate or cyanuric acid stabilizers are used in a pool, the concentration shall not exceed sixty (60) ppm. When the maximum allowable cyanuric acid concentration is exceeded, the pool must be closed until appropriate measures are taken to lower the concentrations to the required range.

(k) Chlorinated isocyanurates and cyanuric acid stabilizers shall not be used in any indoor pool.

(l) Only in pools where chlorine is used as the disinfectant can cyanuric acid be used as a stabilizer.

(m) The water in a pool shall have a pH of not less than seven and two-tenths (7.2) and not more than seven and eight-tenths (7.8).

(n) The alkalinity of the water in pools shall be at least eighty (80) ppm and no more than one hundred twenty (120) ppm as titrated to the methyl orange endpoint unless it can be shown that another level of total alkalinity produces chemically balanced

water based on calculations approved by the department.

(o) Pool water shall be tested for the following:

(1) pH and disinfectant residuals daily before the pool is open for use and at least one (1) other time during the hours of pool use.

(2) Combined chlorine at least twice a week when chlorine is used.

(3) Total alkalinity at least once a week.

(4) Cyanuric acid, when it is used, at least once a week.

(p) Spa water shall be tested for pH and disinfectant residuals daily before the spa is open for use and at least two (2) other times during the hours of spa use for the following:

(1) Combined chlorine concentration, when chlorine is used, at least twice a week.

(2) Total alkalinity at least once a week.

(q) All results shall be recorded.

(r) If electronic monitoring devices are used, the accuracy of the device must be checked as required by the manufacturer or compared for accuracy at least once per week with a test kit. Use of oxidation reduction potential (ORP) controllers does not negate the manual daily testing requirement for disinfectant residuals.

(s) The pool shall be closed for at least one (1) hour following the manual addition of a chemical directly to the pool water.

(t) Any chemical used to treat the water in a pool must be used in accordance with the product label directions. (*Indiana State Department of Health; 410 IAC 6-2.1-30; filed May 19, 2003, 8:30 a.m.: 26 IR 3328; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

#### **410 IAC 6-2.1-31 Water quality standards**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 31. (a) At all times, the water in a pool shall have sufficient clarity so that the main drain or a black disc, six (6) inches in diameter placed at the deepest part of the pool, is readily visible from the deck.

(b) The water temperature in spas may not exceed one hundred four (104) degrees Fahrenheit.

(c) One (1) water sample must be collected weekly from each pool and submitted for bacteriological examination. Samples may not be collected from any portion of the recirculation system.

(d) Sampling shall start at least one (1) week prior to the opening of the pool.

(e) Bacteriological examinations performed on each sample shall include the heterotrophic thirty-five (35) degree Centigrade plate count, and a total coliform test using either the:

(1) multiple tube fermentation test;

(2) membrane filter test; or

(3) one hundred (100) milliliter presence/absence test.

Tests shall be performed by a state-approved laboratory in accordance with the procedures outlined in Standard Methods.

(f) A copy of each water sample report must be submitted to the local health department by the pool owner or operator within four (4) days of receiving such a report from the laboratory. No two (2) consecutive samples or three (3) samples collected in a six (6) week period shall demonstrate the following:

(1) Contain more than two hundred (200) bacteria colonies per milliliter as determined by the heterotrophic thirty-five (35) degree Centigrade plate count.

(2) Test positive (confirmed test) for coliform organisms in any of the five (5) to ten (10) milliliter portions of a sample when the multiple tube fermentation tube test is used.

(3) Test positive for more than one (1) coliform organism per fifty (50) milliliters when the membrane filter test is used.

(4) Show the presence of any coliform when the one hundred (100) milliliter presence/absence test is used.

Failure to collect and analyze weekly water samples during the period that a pool is open for use is considered an unsatisfactory report for the applicable week.

(g) When the pool must be closed due to an unsatisfactory sample report, an additional water sample must be submitted to an approved laboratory. The pool may be reopened upon receipt of a satisfactory report. (*Indiana State Department of Health; 410*

*IAC 6-2.1-31; filed May 19, 2003, 8:30 a.m.: 26 IR 3329; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-32 Recirculation**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 32. (a) The recirculation system shall be maintained in accordance with the following:

- (1) The turnover rate for spas shall be once every half hour.
- (2) For pools, except spas, built before September 13, 1989, the turnover rate shall be the lesser of the following times:
  - (A) Eight (8) hours.
  - (B) The maximum pool capacity in gallons, divided by the maximum bather load, divided again by one hundred eight (108) gallons per hour per bather.
- (b) In all other pools built on or after September 13, 1989, the turnover rate shall be as follows:

| POOL TYPE               | TURNOVER RATE |
|-------------------------|---------------|
| Wading pools            | 1 hour        |
| Wave pools              | 2 hours       |
| Zero depth pools        | 2 hours       |
| Pools with wading areas | 2 hours       |
| Competition pools       | 6 hours       |
| Diving pools            | 12 hours      |
| All other pools         | 6 hours       |

(c) A suitable means shall be provided to measure the flow of water through the pool water recirculation system.

(d) Footbaths are prohibited.

(e) All public and semi-public pools and spas must comply with the Virginia Graeme Baker Pool and Spa Safety Act, 15 U.S.C. 8001-8008. *(Indiana State Department of Health; 410 IAC 6-2.1-32; filed May 19, 2003, 8:30 a.m.: 26 IR 3330; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

**410 IAC 6-2.1-33 Gas chlorine and chemical storage**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 33. (a) The following shall be provided when chlorine gas is used:

- (1) Chlorine gas equipment shall be operated and maintained in accordance with standards and recommendations of The Chlorine Institute, Inc., Pamphlet 82, (1999). A copy of said standards must be kept on the premises.
- (2) A self-contained positive pressure demand breathing apparatus, with air supply tank, designed for use in a chlorine atmosphere.
- (3) The self-contained breathing apparatus shall be kept in a closed cabinet, accessible without a key and located outside of the room in which the chlorinator or chlorine cylinders are located.
- (4) Pool equipment operating staff shall be trained in the use of the self-contained breathing apparatus and shall maintain documentation of that training.
- (5) Each pool operator shall have a written emergency plan of action for chlorine gas leaks. The emergency plan shall be communicated to all employees, posted in a conspicuous place, and be practiced with annual drills.

(b) All chemicals and items in the chemical storage room shall be stored at least six (6) inches above the floor to allow for flushing the area in the case of a spill.

(c) All chemicals shall be stored in accordance with manufacturer recommendations. *(Indiana State Department of Health; 410 IAC 6-2.1-33; filed May 19, 2003, 8:30 a.m.: 26 IR 3330; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-34 Lifesaving and safety equipment**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 34. (a) At least one (1) unit of lifesaving equipment shall be provided at each pool and shall consist of the following:

- (1) A life pole, or shepherd's crook type of pole, with blunted ends and a minimum length of twelve (12) feet.
- (2) A United States Coast Guard approved ring buoy, having a minimum outside diameter of twenty (20) inches, with one-fourth (1/4) inch diameter rope equal in length to the width of the pool and not to exceed forty-five (45) feet in length. A rescue tube is a permitted alternative to the ring buoy at locations where lifeguards are on duty during operational hours.

(b) One (1) spine board, with straps and head immobilizer, shall be available for each pool enclosure, except for spas and wading pools.

(c) For pools with a surface area of two thousand (2,000) square feet or more, a rescue tube or ring buoy shall be provided for each lifeguard on duty.

(d) A twenty-four (24) unit first aid kit that meets American National Standards Institute (ANSI) standard Z308.1-2003 or 2009 and two (2) blankets shall be provided within each pool enclosure. The first aid kit shall be kept filled and ready for use whenever the pool is open for use.

(e) A telephone shall be located within two hundred (200) feet of the pool enclosure and must be available for emergency use whenever the pool is open for use, with the facility location and the following emergency telephone numbers posted within view:

- (1) 911.
- (2) Ambulance or rescue unit.
- (3) Hospital.
- (4) Police station.
- (5) Fire department.

(f) Depth markings of pools shall conform to 675 IAC 20-2.

(g) A removable buoyed transition line, anchored at each end, shall separate the shallow area defined as five (5) feet or less, from the deeper pool area, except when the pool is being used for organized activities or during operation as a wave pool.

(h) One (1) unit of lifesaving equipment:

- (1) in good repair;
- (2) ready for use; and
- (3) stored within twenty (20) feet of the pool;

shall be provided for each two thousand (2,000) square feet of pool water surface, except spas and wading pools. (*Indiana State Department of Health; 410 IAC 6-2.1-34; filed May 19, 2003, 8:30 a.m.: 26 IR 3330; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

**410 IAC 6-2.1-35 Lifeguards**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 35. (a) A qualified lifeguard is required for all public pools. A qualified lifeguard is required for all semi-public pools with a surface area of two thousand (2,000) square feet or more. Lifeguards must be on duty at poolside at all times when the pools are open for use.

(b) A qualified lifeguard or attendant must be stationed continuously at a waterslide and control its use.

(c) When lifeguards are required, they shall be provided as follows:

| BATHER LOAD* | MINIMUM NUMBER OF LIFEGUARDS |
|--------------|------------------------------|
| 0-75         | 1                            |
| 76-150       | 2                            |
| 151-225      | 3                            |
| 226-300      | 4                            |

\*When the bather load exceeds three hundred seventy-five (375), one (1) lifeguard shall be provided for each additional seventy-five (75) bathers or fraction thereof.

(d) Lifeguards shall possess a current nationally recognized certification in each of the following:

- (1) Lifeguard training.
- (2) Adult/infant/child cardiopulmonary resuscitation.
- (3) First aid.

Copies of these certificates shall be kept on site and available for inspection.

(e) The operators of all public pools shall provide annual lifeguard orientation and training that includes training in bloodborne pathogens. New guards shall also receive training when they are employed.

(f) When on patron surveillance duty, lifeguards shall not perform any other duties, including instruction of a class or coaching, and shall not be in the water except in the line of duty.

(g) Lifeguards on duty shall be identified with distinguishing equipment, apparel, or emblems.

(h) Lifeguard platforms or chairs shall be:

- (1) elevated five (5) to six (6) feet above the deck at pool areas with a depth of five (5) feet or greater;
- (2) placed in locations that minimize glare on the water; and
- (3) in a position that will allow complete visual coverage of the pool and the pool bottom within a field of view not greater than forty-five (45) degrees on either side of a line extending straight out from the chair.

*(Indiana State Department of Health; 410 IAC 6-2.1-35; filed May 19, 2003, 8:30 a.m.: 26 IR 3331; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-36 Warning signs**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 36. (a) Warning signs shall be provided in legible letters at least four (4) inches high as follows:

(1) A sign warning "DANGER–HAZARDOUS CHEMICALS" shall be posted on or adjacent to the entrance to the pool chemical feed and chemical storage rooms.

(2) Whenever the pool area is open for use and no lifeguard service is provided, warning signs shall be placed in plain view at the entrances and inside the pool area that state "Warning–No Lifeguard on Duty". In addition, the signs shall also state in clearly legible letters at least two (2) inches high, "No Swimming Alone. Children Under 14 Years of Age and Nonswimmers Shall Not Use the Pool Unless Accompanied by a Responsible Adult."

(3) When the pool is not open for use, a sign shall be posted stating "POOL CLOSED".

(4) A sign stating "No Diving" shall be posted at nondiving areas and at portions of the pool that are five (5) feet deep or less. "No Diving" signs are not required at spas or wading pools.

(b) The following user sanitation and safety rules shall be posted on signs with letters at least one (1) inch high and within the pool enclosure:

(1) Anyone who has or has had diarrhea in the past two (2) weeks shall not use the pool.

(2) Anyone who has an area of exposed subepidermal tissue, open blisters, cuts, etc., is advised not to use the pool.

(3) All persons shall take a cleansing shower before using the pool. A bather leaving the pool to use the toilet shall take another cleansing shower before returning to the pool enclosure.

(4) Spitting, spouting of water, blowing the nose, and similar behavior in the pool is prohibited.

(5) No running or rough play is permitted in the pool, on the runways, on diving boards, on floats, on platforms, in dressing rooms, or in showers.

(6) Street clothes are not allowed in the pool.

(7) All diaper aged children shall use plastic pants with tight fitting elastic at the legs and waist, or swim diapers.

(8) Do not change diapers at poolside.

(c) In addition to the requirements of subsection (b), spa pools shall have the following posted:

(1) Pregnant women, small children, or persons with heart disease, diabetes, high blood pressure, or low blood pressure

should not enter the spa except under advice of a physician.

(2) Avoid use while under the influence of alcohol, tranquilizers, or other drugs that cause drowsiness or raise or lower blood pressure.

(3) Exposure greater than fifteen (15) minutes may result in drowsiness, nausea, or fainting.

(d) The following shall be posted near the entrance of swimming pool slides:

(1) One (1) rider at a time. Wait until the landing area is clear before entering the slide.

(2) Slide in a sitting position or on the back only.

(3) Do not attempt to stop on the slide.

(4) Leave the plunge area immediately.

(5) Warning: Water depth is \_\_\_\_ feet.

(e) The following shall be posted near the entrance of the water slide:

(1) Only one (1) rider at a time.

(2) Follow the instructions of the attendant and/or lifeguard.

(3) No running, standing, kneeling, rotating, tumbling, or stopping in the flumes.

(4) No diving from a flume.

(5) Leave the plunge pool promptly after entering.

(f) Pools shall have a sign with letters at least one (1) inch high stating the maximum bather load posted within the pool enclosure. (*Indiana State Department of Health; 410 IAC 6-2.1-36; filed May 19, 2003, 8:30 a.m.: 26 IR 3331; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA*)

#### **410 IAC 6-2.1-37 Cleaning**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 37. (a) Visible dirt on the bottom and walls of the pool shall be removed at least every twenty-four (24) hours or more frequently if required.

(b) Scum, oils, or floating matter on the water surface of a pool shall be removed continuously by skimming, flushing, or other effective means when the pool is open for use. (*Indiana State Department of Health; 410 IAC 6-2.1-37; filed May 19, 2003, 8:30 a.m.: 26 IR 3332; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA*)

#### **410 IAC 6-2.1-38 Records of operation**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 38. (a) Operating records shall be logged daily, kept for a minimum of one (1) year, and be available upon request by the department. The operating records must contain the following:

(1) Disinfectant residuals and combined chlorine concentrations.

(2) pH readings.

(3) Volume of fresh water added.

(4) Operating periods of pool water recirculation pumps and filters and the corresponding rate of flow meter readings.

(5) Amounts of chemicals used.

(6) Maintenance and malfunctioning of equipment.

(7) The date and time of any fecal events occurring in the pool, whether it involved formed stool or diarrhea, and the free chlorine and pH levels at the time of observation of the event. Before reopening the pool, the:

(A) free chlorine and pH levels;

(B) procedures followed in response to the fecal accident, including the process used to increase chlorine levels (if necessary); and

(C) contact time;

must be recorded.

(b) An injury/incident report using a form prescribed by the department shall be made for each occurrence that:

- (1) results in death;
- (2) requires resuscitation;
- (3) results in transportation to a hospital or other facility for medical treatment; or
- (4) results in an illness connected to the water quality at the pool.

(c) The injury/illness report shall be forwarded to the department within ten (10) days. *(Indiana State Department of Health; 410 IAC 6-2.1-38; filed May 19, 2003, 8:30 a.m.: 26 IR 3332; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-39 Visitor and spectator areas at public pools**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 39. There shall be a separation between the spaces used by visitors and spectators at a public pool and those spaces used by bathers. Visitors and spectators in street clothes may be allowed within the perimeter enclosure if a separate area is provided that is segregated from the space used by the bathers by a barrier or wall at least twenty-nine (29) inches high. *(Indiana State Department of Health; 410 IAC 6-2.1-39; filed May 19, 2003, 8:30 a.m.: 26 IR 3332; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

#### **410 IAC 6-2.1-40 Food area**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 40. (a) Food may be permitted only in the visitor or spectator area of a public pool, or in a similarly separated snack area for bathers.

(b) Only drinks in unbreakable containers shall be permitted on the pool deck. *(Indiana State Department of Health; 410 IAC 6-2.1-40; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-41 Multi-use suits and towels**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 41. (a) After each use, all multi-use suits and towels, furnished to bathers by the operator of a pool, shall be washed thoroughly with detergent and hot water of at least one hundred seventy-five (175) degrees Fahrenheit or laundered in warm soapy water containing a chlorine concentration of at least fifty (50) parts per million. Suits and towels must be rinsed and thoroughly dried after laundering.

(b) Clean suits and towels must be kept strictly separated from those that have been used and are unlaundered. *(Indiana State Department of Health; 410 IAC 6-2.1-41; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

#### **410 IAC 6-2.1-42 Garbage and refuse disposal**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 42. Garbage and refuse shall be collected, stored, and disposed so that the pool area is kept clean and litter free. *(Indiana State Department of Health; 410 IAC 6-2.1-42; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

**410 IAC 6-2.1-42.1 Tourist home pools and spas**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 42.1. (a) Water introduced into the pool or spa at a tourist home, either directly or through the recirculation system, shall be supplied through an air gap or in accordance with 675 IAC 16.

(b) Semi-public pools and spas at tourist homes shall meet the following:

(1) A free residual of the disinfectant chemical shall be maintained throughout the pool or spa at concentrations in accordance with the following:

| Pool Type | CHLORINE |         | BROMINE |          |
|-----------|----------|---------|---------|----------|
|           | Minimum  | Maximum | Minimum | Maximum  |
| Pools     | 1.0 ppm  | 7.0 ppm | 2.0 ppm | 10.0 ppm |
| Spas      | 2.0 ppm  | 7.0 ppm | 4.0 ppm | 10.0 ppm |

(2) Whenever the residual disinfectant:

(A) falls below the minimum concentration required; or

(B) exceeds the maximum concentration allowed;

the pool or spa shall be cleared and kept free of bathers until disinfectant residuals are within the acceptable range.

(3) The pool or spa water shall be superchlorinated to breakpoint or superoxidized with a nonchlorine oxidizer when the pool test kit reveals a combined chlorine (chloramine) concentration of five-tenths (0.5) ppm or greater.

(4) Chlorinated isocyanurates or stabilized chlorine shall not be used for breakpoint chlorination.

(5) The water temperature in a spa may not exceed one hundred four (104) degrees Fahrenheit.

(6) The water in a pool or spa shall have a pH of not less than seven and two-tenths (7.2) and not more than seven and eight-tenths (7.8).

(7) The alkalinity of the water in pools and spas shall be at least eighty (80) ppm as titrated to the methyl orange endpoint.

(8) If chlorinated isocyanurate or cyanuric acid stabilizers are used in a pool, the concentration shall not exceed sixty (60) ppm. When the maximum allowable cyanuric acid concentration is exceeded, appropriate measures shall be taken to lower the concentrations to the required range.

(9) Chlorinated isocyanurates and cyanuric acid stabilizers shall not be used in a spa or in an indoor pool.

(10) Only in pools where chlorine is used as the disinfectant can cyanuric acid be used as a stabilizer.

(11) Pool and spa water shall be tested and logged for the following:

(A) pH and disinfectant residuals before each change in occupancy.

(B) Combined chlorine at least once a week when chlorine is used.

(C) Total alkalinity at least once a week.

(D) Cyanuric acid, when it is used, at least once a week.

(12) The pool or spa shall be closed for at least one (1) hour following the manual addition of a chemical directly to the water.

(13) Any chemical used to treat the water in a pool or spa must be used in accordance with the product label directions.

(14) At all times, the water in a pool shall have sufficient clarity so that the main drain or a black disc, six (6) inches in diameter placed at the deepest part of the pool, is readily visible from the deck. Water in a spa shall have sufficient clarity so, when the hydrojets are turned off, the main drain or a black disc, six (6) inches in diameter placed at the deepest part of the spa, is readily visible from the deck.

(15) One (1) water sample must be collected each month that the pool or spa is open for use and submitted for bacteriological examination. Samples may not be collected from any portion of the recirculation system. Bacteriological examinations performed on each sample shall include the heterotrophic thirty-five (35) degree Centigrade plate count and a total coliform test using either the:

(A) multiple tube fermentation test;

(B) membrane filter test; or

(C) one hundred (100) milliliter presence/absence test.

Tests shall be performed by a state-approved laboratory in accordance with the procedures outlined in Standard Methods.

(16) A copy of each water sample report must be submitted to the local health department by the pool or spa owner or operator within four (4) days of receiving such a report from the laboratory. Should a bacteriological sample collected in accordance with subdivision (15):

- (A) contain more than two hundred (200) bacteria colonies per milliliter as determined by the heterotrophic thirty-five (35) degree Centigrade plate count;
- (B) test positive (confirmed test) for coliform organisms in any of the five (5) to ten (10) milliliter portions of a sample when the multiple tube fermentation tube test is used;
- (C) test positive for more than one (1) coliform organism per fifty (50) milliliters when the membrane filter test is used; or
- (D) show the presence of any coliform when the one hundred (100) milliliter presence/absence test is used;

another bacteriological sample shall be collected from the same pool within a week of receiving notice about the original monthly bacteriological sample test results, and analyzed in accordance with subdivision (15). No two (2) consecutive bacteriological samples shall demonstrate an exceedance of clause (A), (B), (C), or (D). Failure to collect and analyze water samples in accordance with subdivision (15) and this subdivision during the period that a pool is open for use is considered an unsatisfactory report for the applicable month.

(17) When the pool or spa must be closed due to an unsatisfactory sample report, an additional water sample must be submitted to an approved laboratory. The pool or spa may be reopened upon receipt of a satisfactory report.

(18) All items in the room used to store pool or spa water treatment chemicals shall be stored at least six (6) inches above the floor to allow for flushing the area in the case of a spill.

(19) All pool or spa water treatment chemicals shall be stored in accordance with the manufacturer's recommendations.

(20) A twenty-four (24) unit first aid kit that meets American National Standards Institute (ANSI) standard Z308.1-2003 or 2009, shall be provided at each tourist home having a pool or spa.

(21) Prior to occupancy of a tourist home containing a spa, a legible printed warning shall be provided to the lodger stating the following:

- (A) Pregnant women, small children, or persons with heart disease, diabetes, high blood pressure, or low blood pressure should not enter the spa except under advice of a physician.
- (B) Avoid use while under the influence of alcohol, tranquilizers, or other drugs that cause drowsiness or raise or lower blood pressure.
- (C) Exposure greater than fifteen (15) minutes may result in drowsiness, nausea, or fainting.

(c) The test kits used to determine quality of the water in a pool or spa at a tourist home shall have reagents replaced according to the manufacturer's requirements and shall meet the following:

(1) For pools or spas that use chlorine as a disinfectant, the test kit shall cover a minimum range from zero (0) ppm to five (5.0) ppm or higher. The test kit must be:

- (A) in increments of five-tenths (0.5) ppm; and
- (B) capable of measuring total chlorine.

(2) For pools or spas that use a disinfectant other than chlorine, the test kit shall have the range and accuracy proportionate to the range required for chlorine test kits.

(3) When a cyanurate is used as a chlorine stabilizer, the test kit shall be capable of measuring cyanuric acid concentrations.

(4) A pH test kit:

- (A) accurate to the nearest two-tenths (0.2) pH unit; and
- (B) covering a minimum range of seven (7.0) to eight (8.0) pH units;

shall be used.

(5) A test kit capable of measuring total alkalinity shall be used.

*(Indiana State Department of Health; 410 IAC 6-2.1-42.1; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-43 Reasons for closure**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 43. A pool shall be closed when any of the following occurs:

- (1) Failure to meet:
  - (A) bacteriological requirements of section 31(g), 42.1(b)(15), or 42.1(b)(16) of this rule;
  - (B) disinfectant concentrations of section 30(b), 42.1(b)(1) of this rule; or
  - (C) the water clarity requirements of section 31(a) or 42.1(b)(13) of this rule.
- (2) The grate on the main drain is missing or broken, or failure to meet the requirements of section 32(e) *[of this rule]*.
- (3) Failure to meet lifeguard requirements of section 35 of this rule, where applicable.
- (4) A pump, filter, or disinfectant chemical feeder is not operational.
- (5) A fecal accident.
- (6) The spa water temperature exceeds one hundred four (104) degrees Fahrenheit.
- (7) pH values less than 6.8 or equal to or greater than 8.0.
- (8) If the department determines a condition, situation, or installation is created, installed or maintained that may:
  - (A) cause or result in a health or safety hazard; or
  - (B) cause or transmit disease.

*(Indiana State Department of Health; 410 IAC 6-2.1-43; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA; errata filed Jul 20, 2011, 2:31 p.m.: 20110803-IR-410110427ACA)*

**410 IAC 6-2.1-44 Fecal accidents**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 44. (a) In the event that a solid stool or full stomach vomit is identified in the pool or spa water, the following steps are required:

- (1) The pool shall be cleared of all patrons and close all affected pools or spas operating a common filtration system and keep closed during the sanitation procedure.
- (2) The solid fecal material or vomit shall be removed using a net or scoop. The pool vacuum shall not be used for this purpose. All equipment used to remove the fecal material or vomit shall be sanitized with a fresh solution of twenty (20) parts per million (ppm) chlorine or immersed in the pool during disinfection.
- (3) The free chlorine/bromine level shall be tested.
- (4) pH shall be maintained 7.5 or less.
- (5) Ensure water temperature of seventy-seven (77) degrees Fahrenheit or higher.
- (6) If chlorine stabilizers are not present in the pool water, the pool shall be closed until a minimum of two (2) ppm of free disinfectant has been present in the pool water for a minimum of twenty-five (25) minutes as measured at poolside or the length of time necessary to attain a CT inactivation value of forty-five (45). When chlorine stabilizers are present in pool water, the pool shall be closed until four (4) ppm of free disinfectant must be present in the pool water for a minimum of twenty-five (25) minutes as measured at poolside or the length of time necessary to attain a CT inactivation value of one hundred (100).
- (7) When the required level of disinfectant concentration is met, the pool may reopen.
- (b) In the event that a nonsolid stool is identified in the pool or spa water, the following steps are required:
  - (1) Immediately clear the pool of all patrons and close all affected pools or spas operating on a common filtration system and keep closed during the sanitization procedure.
  - (2) The fecal matter should be removed as much as possible using a net or scoop. The pool vacuum shall not be used for this purpose. All equipment used to remove the fecal material shall be sanitized with a fresh solution of twenty (20) ppm chlorine or immersed in the pool during disinfection.
  - (3) pH shall be maintained at 7.5 or less.
  - (4) Ensure that water temperature shall be seventy-seven (77) degrees Fahrenheit or higher.
  - (5) If chlorine stabilizers are not present in the pool water, raise the free chlorine residual in the pool water to twenty (20) ppm, chlorine minimum, and maintain it at that level for a minimum of seven hundred sixty-five (765) minutes (twelve (12)

hours and forty-five (45) minutes), or the length of time necessary to attain a CT inactivation value of 15,300 or completely drain the pool to a public sewer. Spas only may be completely drained to an approved sewage disposal system other than a public sewer. Stabilized chlorine cannot be used to raise the free chlorine residual. When chlorine stabilizers are present in the pool water, the pool shall be closed, the pH lowered to 6.5, and a forty (40) ppm of free disinfectant must be present in the pool water for a minimum of thirty (30) hours as measured at poolside.

(6) When the pool is drained, sanitize all surfaces with a chlorine solution of at least twenty (20) ppm.

(7) When the pool is disinfected without draining, continuously operate the recirculation/filtration system during the sanitization/contact period time.

(8) Filters shall be backwashed to waste and filter material replenished as necessary.

(9) When the sanitizing contact period is completed, the pool may be reopened if the:

(A) excess free chlorine levels are reduced to the maximum allowed in section 30(b) of this rule;

(B) pH is balanced as needed;

(C) filter is recharged as needed; and

(D) circulation system is operating.

*(Indiana State Department of Health; 410 IAC 6-2.1-44; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)*

#### **410 IAC 6-2.1-45 Right of entry**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 45. The department or the local health officer may enter public or private property at reasonable times upon presentation of credentials to do any of the following:

(1) Inspect facilities, equipment, or records.

(2) Investigate complaints.

(3) Conduct tests.

(4) Collect samples to obtain information required under this rule.

(5) Determine whether any person is subject to, or in violation of, this rule.

*(Indiana State Department of Health; 410 IAC 6-2.1-45; filed May 19, 2003, 8:30 a.m.: 26 IR 3333; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

#### **410 IAC 6-2.1-46 Enforcement**

Authority: IC 16-19-3-4

Affected: IC 4-21.5-3-8; IC 16-19-3; IC 16-20-1-23

Sec. 46. The department may commence an action under IC 4-21.5-3-8 against a pool operator who:

(1) fails to comply with this rule; or

(2) interferes with or obstructs the department or its designated agent in the performance of duties pursuant to IC 16-20-1-23.

*(Indiana State Department of Health; 410 IAC 6-2.1-46; filed May 19, 2003, 8:30 a.m.: 26 IR 3334; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA)*

#### **410 IAC 6-2.1-47 Incorporation by reference**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 47. The following are hereby incorporated by reference as a part of this rule:

(1) Indiana State Department of Health Bulletin S.E. 11. Copies may be obtained by a mailed request to Indiana State Department of Health, 2 North Meridian Street, Indianapolis, Indiana 46204.

(2) Indiana State Department of Health Bulletin S.E. 13. Copies may be obtained by a mailed request to Indiana State

Department of Health, 2 North Meridian Street, Indianapolis, Indiana 46204.

(3) Standard Methods twenty-first edition, 2005, is incorporated by this rule. Copies may be obtained from the American Public Health Association, Inc., 800 "I" Street NW, Washington, D.C. 20001-3710.

(4) The standards of the Chlorine Institute, Inc., Pamphlet 82, July, 1999. Two (2) copies of these standards are available for reference at the department. Copies may be obtained from the Chlorine Institute Bookstore, P.O. Box 1020, Sewickley, Pennsylvania 15143-1020.

(5) Standard Z308.1-2003, "Minimum Requirements for Workplace First Aid Kits", published by the American National Standards Institute. Two (2) copies of these standards are available for reference at the department. Copies may be obtained from the International Safety Equipment Association, 1901 North Moore Street, Suite 808, Arlington, VA 22209.

(6) Standard Z308.1-2009, "Minimum Requirements for Workplace First Aid Kits", published by the American National Standards Institute. Two (2) copies of these standards are available for reference at the department. Copies may be obtained from the International Safety Equipment Association, 1901 North Moore Street, Suite 808, Arlington, VA 22209.

(7) The Virginia Graeme Baker Pool and Spa Safety Act of 2007, 15 U.S.C. 8001-8008 (2009). Two (2) copies of this law are available at the department. Copies may be obtained online from the Consumer Products Safety Commission website: <http://www.cpsc.gov/>

(Indiana State Department of Health; 410 IAC 6-2.1-47; filed May 19, 2003, 8:30 a.m.: 26 IR 3334; readopted filed Jul 8, 2009, 1:44 p.m.: 20090805-IR-410090209RFA; filed Jul 26, 2010, 2:16 p.m.: 20100825-IR-410090006FRA)

### **Rule 3. Plumbing Regulations**

#### **410 IAC 6-3-1 Plumbing regulations; adoption**

Authority: IC 16-19-3-4

Affected: IC 22-11-1-10

Sec. 1. Plumbing Regulations. The State Board of Health does hereby duly adopt Volume III of the Rules and Regulations of the Administrative Building Council of Indiana [*The current version of the Indiana Plumbing Code may be found at 675 IAC 16.*], as amended and revised, commonly known as and customarily referred to as the Plumbing Rules and Regulations of the State Board of Health.

Information concerning said Rules and Regulations may be obtained from the Director, Administrative Building Council, State Board of Health Building, Indianapolis, Indiana. (Indiana State Department of Health; Reg HSE 18; filed Oct 18, 1945, 10:30 am: Rules and Regs. 1947, p. 1309; filed Apr 19, 1955, 2:00 pm: Rules and Regs. 1956, p. 48; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA) NOTE: Current address is the Department of Fire and Building Services, Indiana Government Center-South, 302 West Washington Street, Indianapolis, Indiana 46204.

### **Rule 4. Heating, Ventilating and Air Conditioning Regulations**

#### **410 IAC 6-4-1 Heating, ventilating and air conditioning regulations; adoption**

Authority: IC 16-19-3-4

Affected: IC 22-11-1-10

Sec. 1. Heating, Ventilating and Air Conditioning Regulations. The State Board of Health does hereby duly adopt Volume IV of the Rules and Regulations of the Administrative Building Council of Indiana [*The current version of the Indiana Mechanical Rules may be found at 675 IAC 18.*], as amended and revised, commonly known as and customarily referred to as the Heating, Ventilating and Air Conditioning Regulations of the State Board of Health.

Information concerning said Rules and Regulations may be obtained from the Director, Administrative Building Council, State Board of Health Building, Indianapolis, Indiana. (Indiana State Department of Health; Reg HSE 19; filed Oct 18, 1945, 10:30 am: Rules and Regs. 1947, p. 1309; filed Apr 19, 1955, 2:00 pm: Rules and Regs. 1956, p. 49; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA) NOTE: Current address is the

Department of Fire and Building Services, Indiana Government Center-South, 302 West Washington Street, Indianapolis, Indiana 46204.

## **Rule 5. School Construction Regulations (Repealed)**

*(Repealed by Indiana State Department of Health; filed Jan 18, 1985, 10:02 am: 8 IR 604)*

### **Rule 5.1. School Buildings and School Sites; Health and Safety Requirements**

#### **410 IAC 6-5.1-1 Definitions**

Authority: IC 16-19-3-4

Affected: IC 12-17.2; IC 16-41-21; IC 20-33-2

Sec. 1. (a) The definitions in this section apply throughout this rule.

(b) "Approved" means approved by the state board in all instances where not otherwise specified.

(c) "Classroom" means any place or area within a school in which students are instructed.

(d) "Dormitory" means any place, area, room, or building occupied and provided by the school for student housing.

(e) "Food service" means any place, area, or room within a school building or dormitory where food is routinely prepared and served.

(f) "Grade or grade level" means the finished ground level at the face of the exterior walls.

(g) "Local health officer" means the health officer of any county or local health department, or his or her duly authorized representatives.

(h) "Person" means:

(1) an individual;

(2) a partnership;

(3) a copartnership;

(4) a firm;

(5) a company;

(6) an association;

(7) a society;

(8) a holding company;

(9) a trustee;

(10) a school corporation;

(11) a school city;

(12) a school town;

(13) a school district;

(14) any consolidated unit of government; or

(15) any other legal entity, its or their successors or assigns, or agent of any of the aforesaid.

(i) "School" means any place, or structure in which systematic instruction of any kind or grade is carried on for more than ten (10) persons for five (5) hours or more per week or two and one-half (2 1/2) hours or more per day, including preschools, kindergartens; elementary and secondary schools providing instruction to meet the compulsory attendance law under IC 20-33-2.

(j) The following shall not be considered to be educational institutions subject to the provisions of this rule:

(1) Sunday schools and vacation Bible schools, and any other program of a religious entity except those that are accredited by the Indiana state department of education.

(2) Daycare centers subject to the provisions of IC 12-17.2.

(3) Private residences.

(4) Any educational institution or educational training that:

(A) is maintained or given by an employer or group of employers, without charge, for his, her, or their employees or for persons they anticipate employing;

(B) is maintained or given by a labor organization, without charge, for its or their members or apprentices; or

(C) offers exclusively instruction that is clearly self-improvement, motivational, or avocational in intent, including, but not limited to, instruction in dance, religion, music, self-defense, or private tutoring.

(5) Any private religious school except those that are accredited by the state department of education.

(k) "School building or facility" means any structure used in connection with the operation of schools, including the site therefor, the equipment thereof, and all appurtenances thereto, such as heating, ventilation, water supply, sewage disposal, plumbing, drainage, lighting, walks, drives, playgrounds, athletic fields, and other necessary structures and improvements used in connection therewith.

(l) "School site" means a plot of ground or property set apart for the use of a school.

(m) "State board" means the state board of health.

(n) "State health commissioner" means the commissioner of the Indiana state board of health or his or her duly authorized representatives.

(o) "Swimming pool" means any structure, basin, chamber, or tank containing a body of water for swimming, diving, or recreational bathing, including its appurtenances. (*Indiana State Department of Health; 410 IAC 6-5.1-1; filed Jan 18, 1985, 10:02 a.m.: 8 IR 596; filed May 20, 1986, 4:00 p.m.: 9 IR 2687; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; filed Dec 20, 2011, 1:54 p.m.: 20120118-IR-410110319FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-5.1-2 Administration of regulations**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 2. 410 IAC 6-5.1 shall be administered by the state board through the state health commissioner. (*Indiana State Department of Health; 410 IAC 6-5.1-2; filed Jan 18, 1985, 10:02 am: 8 IR 597; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-5.1-3 Notice of construction or modification**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 3. (a) 410 IAC 6-5.1 shall apply to every school building, including every existing building or portion of an existing building, devoted to school use.

(b) Any person or persons planning construction, addition to, or significant change in the construction of any school facility, shall prior to the initiation of any such construction, submit detailed plans and specifications, drawn to scale, to the state board for review and approval. These plans and specifications must be certified by a registered engineer or architect licensed to practice in the state of Indiana.

(c) Plans and specifications for construction or modification of sewage treatment and disposal facilities shall be submitted to the stream pollution control board for review and issuance of a construction permit prior to construction.

(d) If, after having been approved by the state board, the plans or specifications are changed in any respect covered by 410 IAC 6-5.1, such revised plans or specifications shall be submitted to the state board and approval obtained prior to implementation of the revisions in the project.

(e) Plans and specifications for school buildings and parts of buildings used for school purposes shall comply with all applicable requirements of the Indiana building rules pursuant to 675 IAC 1-1-1 through 3 [675 IAC 1-1 was repealed, filed Apr 11, 1985, 12:11 pm: 8 IR 1010. See 675 IAC 12.].

(f) The owner or his authorized agent shall also comply with all local laws, ordinances, rules, and regulations. (*Indiana State Department of Health; 410 IAC 6-5.1-3; filed Jan 18, 1985, 10:02 am: 8 IR 597; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-5.1-4 Site**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 4. The school site shall be so located, constructed and maintained to protect the health and safety of the students, and shall provide accessibility for the physically handicapped.

(a) All school sites, including additions to existing school sites, and sites formerly utilized for school purposes shall be approved by the state board prior to use or reuse of a building constructed thereon for school purposes. Approval of the school site may be obtained prior to submittal of construction plans for the school building or prior to acquisition of the site.

(b) Sufficient level acreage shall be available to accommodate the building, any planned expansion, its approaches, and its play area. Where a private water supply or private sewage disposal system must be used, additional acreage may be required in order to provide minimum separation distances, and to accommodate planned expansion.

(c) School sites shall be free from any hazards or nuisances.

(1) No school site, school building, or addition to a school building shall be located nearer than 500 feet to any unhealthful condition. Nor shall any unhealthful condition be located or erected within 500 feet of any school site, school building, or school building addition.

(2) The site or finished grade shall permit drainage of the entire area, and shall prevent ponding and excessive inflow from surrounding areas. Provisions for disposal of storm water shall be made to prevent ponding, hazards, or nuisances.

(3) Suitable all-weather surfaced walks and driveways shall be provided from the street or highway for access to school entrances, school bus loading areas and parking areas; for delivery of fuel and supplies; and for the removal of ashes, refuse, grease, sludge, septage, etc.

(4) Loading and unloading areas for school buses and private vehicles shall be located off highways or streets and separate from playgrounds to assure maximum safety for the students.

(5) Ample space for parking shall be provided and so arranged that it will not interfere with regular traffic on the driveways or walkways.

(6) A safe sight distance shall be maintained at all vehicle exits and entrances to and from the school site onto public roads, streets, highways, or thoroughfares.

(7) Where a public water supply system is not available and adequate groundwater for potable use is not assured without detailed subsurface investigation, such investigation must be made to determine the availability of adequate groundwater, prior to site acquisition.

(8) Where an approved public sewer system is not available, an acceptable alternative means for sewage disposal must be determined prior to site acquisition.

*(Indiana State Department of Health; 410 IAC 6-5.1-4; filed Jan 18, 1985, 10:02 am: 8 IR 597; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-5.1-5 Physical facilities**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 5. (a) All school buildings or parts thereof used for school purposes shall:

(1) be located, constructed, and maintained to protect the health and safety of the students; and

(2) include provisions for the physically handicapped.

(b) All school buildings or parts thereof used for school purposes shall at all times be:

(1) maintained in a clean, safe, and sanitary condition; and

(2) in a good state of repair.

(c) Classrooms for preschool, kindergarten, and first or second grade students shall be part of the first story above grade, except where the building is fully sprinklered.

(d) In all classrooms, each student shall be provided with no less than thirty (30) square feet of classroom area. The ceiling

height for classrooms shall not be less than seven and one-half (7 1/2) feet.

(e) All interior surfaces in school buildings shall be well maintained, easily cleanable, and of nontoxic, durable construction. Each floor of a school building shall have adequate space provided for storage of cleaning equipment.

(f) All portions of school buildings or parts thereof used for school purposes shall be provided with natural light by means of exterior glazed openings with an area not less than one-tenth (1/10) of the total floor area, or shall be provided with artificial light. Windows shall be provided on only one (1) side of each classroom.

(1) In all school buildings utilizing electrical light fixtures, the following average minimum levels of illumination (with variation in uniformity not to exceed two (2) to one (1)) shall apply:

|                                                                                                |                 |
|------------------------------------------------------------------------------------------------|-----------------|
| Classrooms, laboratories, study halls, lecture rooms, art rooms, offices, libraries, and shops | 50 foot-candles |
|------------------------------------------------------------------------------------------------|-----------------|

|                                                                                                         |                 |
|---------------------------------------------------------------------------------------------------------|-----------------|
| Drafting rooms, typing rooms, sewing rooms, and those portions of rooms where detail work is to be done | 70 foot-candles |
|---------------------------------------------------------------------------------------------------------|-----------------|

|                                                                                         |                 |
|-----------------------------------------------------------------------------------------|-----------------|
| Reception rooms, gymnasiums, cafeterias, food service areas*, and indoor swimming pools | 20 foot-candles |
|-----------------------------------------------------------------------------------------|-----------------|

\*(410 IAC 7-24 requires that certain portions of food service areas be lighted in excess of twenty (20) foot-candles.)

|                                                                                                            |                 |
|------------------------------------------------------------------------------------------------------------|-----------------|
| Auditoriums**, shower/locker rooms, inside restrooms, corridors, store rooms, service areas, and stairways | 10 foot-candles |
|------------------------------------------------------------------------------------------------------------|-----------------|

\*\* (If used as a classroom, study hall, or lecture room, auditoriums shall be provided with a minimum of fifty (50) foot-candles of light.)

(2) For the purposes of subdivision (1), all light intensity measurements shall be at the level of work, or in rooms where no work is done, at a height of thirty (30) inches above the floor.

(3) All classroom lighting shall be constructed to minimize direct glare.

(g) All light fixtures located in student areas shall be shielded to protect the students from injury due to bulb breakage.

(h) The exterior windows in classrooms shall be equipped with blinds, window shades of translucent material, or other approved means to control natural light.

(i) In student areas, windows having sills thirty (30) inches or less from the floor shall be provided with approved safety glass or with protective devices installed on the interior of the room.

(j) All portions of school buildings or parts thereof used for school purposes shall be provided with natural ventilation by means of operable exterior windows with an area of not less than one-twentieth (1/20) of the total floor area or shall be provided with a mechanically operated ventilating system. The mechanically operated ventilating system shall supply a minimum of five (5) cubic feet per minute of outside air, with a total circulation of not less than fifteen (15) cubic feet per minute per occupant in all portions of the building. Each such ventilating system shall be kept continuously in operation whenever a room it serves is occupied.

(1) Ventilation shall be sufficient to provide adequate oxygen and a character of freshness in the air and to remove exhaled air and undesirable odors during periods of student occupancy.

(2) Assembly rooms, auditoriums, gymnasiums, dressing rooms, interior restrooms, laboratories, shops, and other areas where toxic or otherwise objectionable odors are produced shall be mechanically exhausted to the outside.

(k) All school buildings or parts thereof used for school purposes shall be equipped with heating facilities with capacity sufficient to maintain a uniform temperature in all student areas under severest weather conditions. Portable space heaters are prohibited.

(1) Heating facilities shall be capable of and shall be operated to maintain a temperature during periods of student occupancy not less than sixty-eight (68) degrees Fahrenheit in all instructional rooms, offices, locker rooms, and cafeterias, not less than sixty-five (65) degrees Fahrenheit in activity rooms and shops, and not less than sixty (60) degrees Fahrenheit in interior toilet rooms.

(2) Heating facilities shall be constructed in such a manner that drafts and uneven heating are minimized.

(3) Pipes, ducts, and radiators containing steam or hot water and located in student areas shall be shielded to protect occupants from injury.

(4) Heating facilities shall be constructed, operated, and maintained for the efficient consumption and utilization of energy.

(l) Where provided, air-conditioning systems shall be capable of and shall be operated to maintain a temperature not to exceed seventy-eight (78) degrees Fahrenheit and sixty-five percent (65%) relative humidity during periods of student occupancy.

17). (m) The building electrical systems shall comply with the applicable requirements of the Indiana electrical rules (675 IAC

(1) The building electrical systems shall be:

(A) sufficient to meet peak electrical demands; and

(B) maintained for the efficient consumption and utilization of energy.

(2) Classrooms shall be provided with electrical receptacles, located as required for connection of semipermanent or often used equipment.

(3) All electrical receptacles and switches accessible to the students shall be shielded to prevent accidental shock. All electrical wiring accessible to the students shall be protected to prevent electric shock.

(4) In all restrooms and shower/locker rooms constructed after the effective date of this rule, electrical receptacles provided for connection of personal grooming equipment shall be provided with ground fault circuit interrupters to prevent electric shock.

(n) All furniture and equipment used in any school building or a part of a building used for school purposes shall be durable and easily cleanable, with rounded corners and edges, and otherwise protected to ensure safety. Heights of furniture and equipment shall be based on the size of students using them.

(o) All primary and secondary school buildings or parts thereof used for school purposes shall provide storage for the clothing and belongings of each student. Lockers, hanger bars, or hooks shall be provided at the ratio of one (1) for each student. Heights of lockers, hanger bars, hooks, and shelves shall be based on the size of students using them. Where provided, lockers shall sit upon closed front bases.

(p) Drinking water facilities shall be provided in all school buildings or parts thereof used for school purposes.

(1) The temperature of the water supplied for drinking purposes shall not be lower than forty (40) degrees Fahrenheit nor higher than seventy-five (75) degrees Fahrenheit.

(2) Drinking water facilities shall be provided at the ratio of one (1) for each seventy-five (75) students or fraction thereof.

(3) Drinking water facilities shall be:

(A) constructed of impervious, easily cleanable materials; and

(B) kept clean and in a good state of repair.

Heights of drinking water facilities shall be based on the size of students using them.

(4) Drinking water facilities shall not be located in toilet rooms.

(5) Drinking fountains, where provided, shall be convenient to primary rooms, gymnasiums, playgrounds, and shops, but may be located to serve the greatest number of students. At least one (1) conveniently located drinking fountain shall be provided on each floor having classrooms.

(6) Drinking fountains, where provided, shall have a sanitary type guarded angle-stream jet head and an adjustable flow regulator. The outlet shall not be below the flood rim of the fixture.

(q) Service sinks or similar facilities shall be provided in all school buildings or parts thereof used for school purposes.

(1) There shall be provided a minimum of one (1) service sink or similar facility on each floor of the building, located near the storage space for cleaning equipment.

(2) Both hot and cold running water under pressure shall be available at each service sink.

(3) All service sinks or similar facilities shall be protected against back-siphonage.

(r) Provisions shall be made in all schools so that health examinations, screening tests, and first-aid service can be conducted to protect the health and safety of the students.

(1) Space shall be provided for one (1) cot for each three hundred (300) students in the school. Cots shall be:

(A) constructed of cleanable material; and

(B) disinfected after each use.

Linens, pillows, and blankets, where provided, shall be washed after each use and stored in a manner to prevent contamination.

(2) As a minimum, a first aid kit consisting of:

(A) forty-eight (48) one (1) inch by three (3) inch plastic adhesive bandages;

(B) ten (10) ammonia inhalants;

(C) twenty (20) PVP swabs;

- (D) four (4) two (2) inch offset bandages;
- (E) one (1) forty (40) inch triangular bandage;
- (F) six (6) one-eighth (1/8) ounce burn ointments;
- (G) one (1) four (4) inch offset bandage;
- (H) one (1) one (1) ounce eye wash;
- (I) ten (10) stingkill swabs;
- (J) one (1) cold pack; and
- (K) eight (8) knucklebands;

shall be provided in a readily accessible location.

(3) Restroom and handwashing facilities shall be located convenient to the cot space.

(s) Each school building or parts thereof used for school purposes shall be provided with restroom and sanitary facilities. Restrooms and sanitary facilities shall be kept in a clean condition, in good repair, well lighted, and adequately ventilated. In cases where privies are provided, they shall be of the sanitary vault-type, constructed and operated in compliance with the standards of the state board.

(1) There shall be separate, readily accessible general-student-use restrooms for each sex. Restrooms shall not be more than two hundred (200) feet travel distance from any classroom for which they are provided. In all school buildings constructed or first utilized after the effective date of this rule, interior restrooms, where provided for primary and secondary students, shall be located on each floor having classrooms. Restrooms adjoining and opening into preschool through second grade classrooms may be used by both sexes.

(2) Separate shower/locker rooms shall be provided for each sex using a gymnasium.

(3) Separate restrooms shall be provided for school staff or a locked compartment in both boys' and girls' restrooms shall be provided for the staff.

(4) Restrooms shall be equipped with lavatories or other satisfactory handwashing facilities, or such equipment shall be installed in an adjacent room through which the users must pass upon egress from the restroom. In cases where privies are provided, handwashing facilities shall be provided at a location through which the users must pass upon reentering the school building.

(5) Restroom and shower/locker room entrances shall be screened to make the interior of the room hidden from the exterior.

(6) All restroom and shower/locker room floors shall be of smooth, nonporous materials. Walls and ceilings shall be of materials presenting a smooth, nonabsorbent, easily cleaned surface.

(7) All shower/locker rooms and interior restrooms shall be provided with mechanical exhaust ventilation.

(8) All exterior door openings and operable windows of restrooms and shower/locker rooms shall be fly-proof and tight-fitting.

(9) Toilet fixtures, lavatories, and shower heads shall be provided for each sex in accordance with the applicable requirements of the Indiana plumbing rules (675 IAC 16). The number of fixtures provided shall be based on the maximum occupancy of the school. The heights of fixtures shall be based on the size of students using them.

(10) Interior toilet fixtures shall be of the water-flushed type. Multiple seat toilets or makeshift trough arrangements shall not be provided even though they may be equipped for water flushing. All toilet fixtures shall be protected against back-siphonage.

(11) Every water closet shall have an elongated bowl with open-front seat and shall be made of impervious material. All water closets shall be partitioned as necessary to provide individual stalls. Stall partitions shall extend to a height of not less than five and one-half (5 1/2) feet from the floor and the bottom shall not be more than one (1) foot above the floor. Partitions shall be of smooth surface, impervious, easily cleanable material; wood surfaces are not acceptable. An adequate supply of toilet paper shall be provided in a dispenser at each water closet or privy.

(12) Covered disposal facilities shall be provided in the restrooms for junior high school age girls and above and in the restrooms for female staff.

(13) An adequate supply of soap and individual sanitary towels in dispensers, or other approved hand-drying devices, shall be provided convenient to all handwashing facilities. Common towels are not acceptable. If individual sanitary towels are provided, a suitable container for used towels shall also be provided.

(14) Where showers are provided, the nozzles shall be of the slanting spray-type.

(15) Body washing facilities shall be supplied with hot and cold water, under pressure. Hot water provided for body washing and handwashing facilities shall be maintained between one hundred five (105) degrees Fahrenheit and one hundred twenty (120) degrees Fahrenheit. An anti-scald device shall be provided to automatically control the hot water temperature so that it cannot exceed one hundred twenty (120) degrees Fahrenheit. Either mixing-type faucets or automatic mixing devices shall be provided at each body washing facility.

(16) As a minimum, an adequate supply of cold water, under pressure, shall be provided at all handwashing facilities. Each handwashing facility provided with hot water shall have either a mixing-type faucet or an automatic mixing device.

(t) All student housing and dormitories, where provided by the school, shall be kept in good repair and shall be maintained in a clean, safe, and sanitary condition.

(1) Sleeping rooms shall be sized to provide an area of not less than fifty (50) square feet per student. Separate sleeping areas shall be provided for each sex.

(2) Separate restroom and sanitary facilities shall be provided for each sex. Restroom and sanitary facilities shall comply with applicable sections of this rule.

(3) Food services and related facilities shall comply with applicable sections of this rule.

*(Indiana State Department of Health; 410 IAC 6-5.1-5; filed Jan 18, 1985, 10:02 a.m.: 8 IR 598; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; filed Dec 20, 2011, 1:54 p.m.: 20120118-IR-410110319FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-5.1-6 Food services**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 6. (a) Any room or area in a school building used for the storage, preparation and serving of food, or the washing of food utensils, shall be constructed and operated in compliance with the applicable requirements of the food service rules of the state board (410 IAC 7-15.1 [410 IAC 7-15.1 was repealed filed Mar 30, 2000, 3:51 p.m.: 23 IR 1984.]).

(b) All food service equipment and utensils shall be in compliance with the applicable requirements of the food service rules of the state board (410 IAC 7-15.1 [410 IAC 7-15.1 was repealed filed Mar 30, 2000, 3:51 p.m.: 23 IR 1984.]).

(c) An adequate supply of hot and cold water, under pressure, shall be provided in all food service and related areas where food is prepared, or equipment, utensils, or containers are washed.

(d) In food services and related areas, handwashing facilities, including hot and cold water under pressure, shall be provided at locations convenient to the food preparation and utensil washing areas. Food preparation and utensil washing sinks are not acceptable as handwashing facilities for personnel. Each handwashing facility shall have either a mixing-type faucet or an automatic mixing device. Hot water must be available within a reasonable time after opening the faucets. An adequate supply of soap and individual sanitary towels in dispensers, or other approved hand-drying devices, shall be provided convenient to all handwashing facilities. Common towels are not acceptable. If individual sanitary towels are provided a suitable container for used towels shall also be provided.

(e) After the effective date of 410 IAC 6-5.1, grease traps or interceptors shall be constructed to provide access for maintenance and cleaning only from outside the building. *(Indiana State Department of Health; 410 IAC 6-5.1-6; filed Jan 18, 1985, 10:02 am: 8 IR 601; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-5.1-7 Swimming pools**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 7. (a) All swimming pools and related facilities operated as part of a school building shall be constructed in compliance with the applicable requirements of the Indiana swimming pool rules (675 IAC 9 [675 IAC 9 was repealed, filed Jan 8, 1986, 12:04 pm: 9 IR 1028. See 675 IAC 20.]).

(b) Swimming pools and related facilities shall be operated in compliance with the applicable requirements of the swimming

and wading pool operation rules of the state board (410 IAC 6-2). (*Indiana State Department of Health; 410 IAC 6-5.1-7; filed Jan 18, 1985, 10:02 am: 8 IR 601; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-5.1-8 Water supply (Repealed)**

Sec. 8. (*Repealed by Water Pollution Control Board; filed Sep 24, 1987, 3:00 pm: 11 IR 737*)

#### **410 IAC 6-5.1-9 Sewage disposal**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 9. (a) All sewage treatment facilities for school buildings and related facilities shall be designed, constructed and maintained in accordance with the standards of the Indiana stream pollution control board.

(b) Where any governmental district, agency, community-type, or other public sewerage systems are available or become available within a reasonable distance from the school facility, a connection shall be made thereto and the public sewers shall be used exclusively. If a public sewerage system is not available, sewage shall be disposed of through an approved on-site sewage treatment facility.

(c) All parts of the sewer and sewage disposal or treatment system shall be located to prevent the possibility of contamination of the school water supply or the water supply of surrounding property owners. All components of the sewerage system shall be located at least 100 feet from any water supply well or buried pump suction line; however, sewers constructed of water works grade cast or ductile iron pipe having mechanical joints may be located within the 100-foot distance but not closer than 30 feet to a water supply well or buried pump suction line, with prior written approval of the state board. Exception: The separations enumerated herein shall not necessarily be considered adequate in areas where fissured stone or very permeable soils are encountered.

(d) All parts of the sewer and sewage disposal or treatment system shall be designed, constructed, and maintained to adequately transmit and dispose of daily sewage flows and peak sewage flows.

(e) Storm water or surface drainage shall not be discharged into any public or school sanitary sewer system. Water softener and filter backwash water, boiler blowdown water, and swimming pool water shall not be discharged into any sanitary sewer which drains to an on-site sewage treatment facility, without prior written approval of the state board.

(f) In all school buildings and additions to school buildings constructed after the effective date of 410 IAC 6-5.1, the following shall apply:

(1) Unless it can be documented to the satisfaction of the Indiana stream pollution control board that wastewater is generated at lesser rates, school sewage disposal systems shall be designed and constructed to treat a minimum of 15 gallons per day per elementary student and below, 25 gallons per day per secondary student and above, and 100 gallons per day per dormitory bed, based on maximum building occupancy.

(2) Sewers shall have manholes constructed at intervals of not more than 400 feet along the sewer. Manholes shall be installed at every change in size, alignment or grade of the sewer. Cleanouts the same size as the sewer, and extending to grade, may be substituted for manholes on sewer runs of less than 100 feet; such cleanouts may also be installed at the terminus of a sewer if a manhole is located within 300 feet of the terminus.

(3) The liquid capacity of septic tanks serving schools shall be sufficient to allow for at least 48 hours detention at design flow. One or two tanks may be utilized as long as the design provides two compartments in series. Tank lengths shall be a minimum of three times the tank width, and the compartments in combination shall have a surface settling rate no greater than 30 gallons per day per square foot. A gas deflection baffle shall be provided as part of the final tank outlet.

(*Indiana State Department of Health; 410 IAC 6-5.1-9; filed Jan 18, 1985, 10:02 am: 8 IR 602; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-5.1-10 Refuse disposal**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 10. (a) The township trustee, board of school commissioners, or similar school governing board shall be responsible for the satisfactory storage, collection and disposal of refuse generated in school buildings and related facilities.

(b) Refuse shall be stored in conveniently located, fly-tight, water-tight containers. Where service permits, approved hopper-type containers should be substituted for refuse cans.

(c) Refuse cans and containers shall be stored on racks with at least eight inches clearance off the ground, or on a concrete base, or by other approved construction. All refuse containers must be kept in a sanitary condition, and closed when not in use.

(d) The area around the refuse storage cans and containers shall be kept clean and free of litter.

(e) Refuse shall be disposed of at a permitted solid waste facility or in accordance with Rule 320 IAC 5 *[Pursuant to a style standard adopted by the code revision commission on August 25, 1983, the revisor has renumbered 320 IAC 5 concerning the refuse disposal act as 330 IAC 4.]*.

(f) All incinerators for combustible refuse shall be designed, constructed and maintained in accordance with the applicable rules of the Indiana air pollution control board.

(g) Garbage and empty food containers shall not be placed in any incinerator constructed for the disposal of combustible refuse.

(h) All toxic or hazardous waste generated by a school facility shall be collected, stored, and disposed of in accordance with the applicable rules of the Indiana environmental management board. *(Indiana State Department of Health; 410 IAC 6-5.1-10; filed Jan 18, 1985, 10:02 am: 8 IR 603; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-5.1-11 Special hazards**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 11. (a) No condition shall be created in any school building that is not conducive to health and safety.

(b) No flammable, explosive, toxic, or hazardous liquids, gases, or chemicals shall be placed, stored, or used in any building or part of a building used for school purposes, except in approved quantities as necessary for use in laboratories, shops, and approved utility rooms. Such liquids, gases, or chemicals shall be kept in tightly sealed containers, and stored in safety cabinets or approved storage rooms when not in actual use, and in accordance with applicable requirements of the Indiana flammable liquids code (675 IAC 11.3 *[675 IAC 11.3 was repealed, filed Aug 26, 1985, 4:01 pm: 9 IR 57, and filed Oct 16, 1985, 8:55 am: 9 IR 515. See 675 IAC 22.]*).

(c) Employees and students who must use machines and equipment in shops, laboratories, and food services shall be supplied with the appropriate safety devices for personal protection.

(d) All prescription drugs dispensed to the students under a doctor's order shall be stored in a locked cabinet or room under adult supervision. All prescription drugs shall be dispensed to the students under adult supervision. *(Indiana State Department of Health; 410 IAC 6-5.1-11; filed Jan 18, 1985, 10:02 am: 8 IR 603; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-5.1-12 School facility inspection**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 12. The state health commissioner or local health officer is authorized to make inspections to determine the condition of school buildings and sites. The commissioner or local health officer shall have the authority to enter at reasonable times any private, public, or religious school building for the purpose of inspecting and investigating conditions relating to the enforcement

of 410 IAC 6-5.1. (*Indiana State Department of Health; 410 IAC 6-5.1-12; filed Jan 18, 1985, 10:02 am: 8 IR 604; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-5.1-13 Enforcement**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 13. The state health commissioner or local health officer is hereby authorized to enforce the provisions of 410 IAC 6-5.1. Ordinances, rules, regulations, and other requirements adopted by local government agencies shall not designate standards that are incompatible with or less stringent than 410 IAC 6-5.1. (*Indiana State Department of Health; 410 IAC 6-5.1-13; filed Jan 18, 1985, 10:02 am: 8 IR 604; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-5.1-14 Severability of rule**

Authority: IC 16-19-3-4

Affected: IC 16-41-21

Sec. 14. If any section, paragraph, sentence, clause, phrase or word of 410 IAC 6-5.1, or any other part thereof, be declared invalid for any reason, the remainder of 410 IAC 6-5.1 shall not be affected thereby and shall remain in full force and effect. (*Indiana State Department of Health; 410 IAC 6-5.1-14; filed Jan 18, 1985, 10:02 am: 8 IR 604; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**Rule 6. Mobile Home Community Sanitation and Safety**

**410 IAC 6-6-1 Definitions**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 1. (a) As used in this rule, "department" means the Indiana state department of health.

(b) As used in this rule, "interference with state department of health agent" means, but is not limited to, physical obstruction, attack, or threatened attack on a representative of the department while that representative is conducting inspection, licensing, or enforcement activities under IC 16-41-27 or this rule.

(c) As used in this rule, "manufactured home" has the meaning set forth in IC 16-41-27-3.5.

(d) As used in this rule, "mobile home" has the meaning set forth in IC 16-41-27-4.

(e) As used in this rule, "mobile home community" has the meaning set forth in IC 16-41-27-5.

(f) As used in this rule, "violation" means the failure of a mobile home community owner, operator, adult attendant, caretaker, or other person who has a substantial and direct proprietary interest in the community to abide by a provision of IC 16-41-27 or this rule. (*Indiana State Department of Health; Reg HSE 21R, Sec 1; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 328; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1819; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1764; filed Oct 6, 1989, 4:30 p.m.: 13 IR 278; errata filed Jan 5, 1990, 5:00 p.m.: 13 IR 902; errata filed Jan 30, 1990, 2:05 p.m.: 13 IR 1066; errata filed Jul 9, 1990, 2:00 p.m.: 13 IR 2004; filed Apr 16, 1996, 4:10 p.m.: 19 IR 2282; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; errata filed Dec 31, 2003, 12:00 p.m.: 27 IR 1890; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*) NOTE: Statutory definition of mobile home park altered by Acts 1977, P.L.144.

**410 IAC 6-6-2 Mobile home community sites; zoning; water and sewer service**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 2. (a) Mobile home communities shall be located:

- (1) on well-drained sites; and
- (2) in areas free from flooding or other conditions that will cause or contribute to a health hazard.

(b) Mobile home community sites shall:

- (1) meet all requirements of the local zoning commission; and
- (2) be approved by the commission;

before construction begins.

(c) Every shelter occupied as a residence in a mobile home community, whether mobile or permanent, shall be:

- (1) equipped with toilet, sink, and bath or shower facilities; and
- (2) connected to the water supply and sewer service;

before occupancy. (*Indiana State Department of Health; Reg HSE 21R, Sec 2; filed Jun 14, 1975, 2:29 p.m.: Rules and Regs. 1975, p. 329; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1819; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1765; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-6-3 Mobile home community lots; construction requirements**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27; IC 25-23.7-8

Sec. 3. (a) The owner or operator of the mobile home community shall maintain an accurate plat indicating the size and location of each lot. The plat shall be available at the mobile home community office.

(b) The certifying design professional must inspect and certify:

- (1) construction of new mobile home communities; or
- (2) any changes to a mobile home community;

that necessitate submission of plans or specifications in conformance with IC 16-41-27-22, excepting modifications or expansions addressed by IC 25-23.7-8.

(c) An occupied mobile home shall not be allowed to remain in a mobile home community unless parked on a lot having:

- (1) water supply;
- (2) sewage collection; and
- (3) electrical;

services in conformance with this rule.

(d) The following provisions shall apply to all mobile home communities constructed after June 14, 1974, as well as to all additions to communities constructed after that date:

(1) Each mobile home community lot shall:

- (A) contain at least two thousand five hundred (2,500) square feet; and
- (B) abut directly onto a road, driveway, or parking lot.

(2) Mobile homes or manufactured homes shall not be parked closer than ten (10) feet from:

- (A) an adjoining mobile home or manufactured home; or
- (B) the expanded portions of the mobile home or manufactured home.

(3) No mobile home or manufactured home shall be enclosed around the bottom with a combustible material except that wood may be used for the framework. If mobile homes or manufactured homes are enclosed around the bottom and the water or sewer, or both, connection is located under the mobile home or manufactured home, an access opening or openings shall be provided in close proximity to the water and sewer connections to permit inspection of those connections.

(4) A hard surface area, constructed of concrete, stone, or masonry, shall be provided for each mobile home or manufactured home lot of adequate size to provide a base for steps to the mobile home or manufactured home. A hard surface walk shall connect the steps with the road, driveway, or parking lot.

(e) Bales of hay or straw shall not be used for skirting or insulation of mobile homes or manufactured homes. (*Indiana State Department of Health; Reg HSE 21R, Sec 3; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 329; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1820; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1765; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007,*

2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)

**410 IAC 6-6-4 Streets; parking spaces**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 4. (a) There shall be no dead-end streets:

- (1) less than twenty-four (24) feet in width; and
- (2) in excess of one hundred fifty (150) feet in length;

for vehicle traffic in a mobile home community.

(b) At least one (1) auto parking space for each mobile home or manufactured home lot shall be provided within the property lines of the community.

(c) Auto parking space may be included on the following:

- (1) The mobile home or manufactured home lot.
- (2) The community street.
- (3) Separate parking lots.

If separate parking lots are used, each parking space shall be located within three hundred (300) feet of the mobile home or manufactured home lot it will serve.

(d) The following provisions shall apply to all mobile home communities constructed after June 14, 1974, as well as to all additions to mobile home communities constructed after that date:

- (1) Turnarounds serving to eliminate dead-end streets in communities shall have a diameter of at least sixty (60) feet.
- (2) One-way streets shall be at least twelve (12) feet wide, and two-way streets shall be at least twenty-four (24) feet wide. If on-street parking is to be provided, each parking lane shall be at least an additional eight (8) feet wide.
- (3) Overflow parking shall be provided in a mobile home community at the rate of one (1) space for each three (3) mobile homes or manufactured homes.

(Indiana State Department of Health; Reg HSE 21R, Sec 4; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 330; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1820; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1765; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)

**410 IAC 6-6-5 Minimum lighting**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 5. There shall be a minimum of three-tenths (0.3) foot-candles illumination on streets and walkways in a mobile home community, except where an individual yard light is installed on each mobile home community lot. If an individual yard light is installed on each mobile home community lot, it shall provide illumination at least equivalent to that of a forty (40) watt incandescent bulb. (Indiana State Department of Health; Reg HSE 21R, Sec 5; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 330; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1766; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)

**410 IAC 6-6-6 Community buildings; toilet and laundry facilities**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 6. (a) The community building of a mobile home community, when provided, shall be constructed in accordance with the electrical, plumbing, and other building codes of the state and the municipal unit in which the community is located. Construction of the building must be in accordance with a plan approved by the department as well as by the department of fire and building services.

(b) All exterior openings shall be covered with sixteen (16) mesh screen or equivalent during periods of the year when insects

are prevalent.

(c) Toilet and laundry rooms shall be constructed so that they can be well-lighted at all times. The laundry rooms shall have illumination of at least forty (40) foot-candles on work areas such as washtubs, ironing boards, and sorting tables. The toilet rooms shall have illumination of forty (40) foot-candles in front of mirrors.

(d) Sufficient hot water heating facilities shall be available so that the temperature of the hot water is maintained at a minimum of one hundred twenty (120) degrees Fahrenheit at all times for laundry facilities.

(e) Laundry trays and automatic washers shall be connected to the sanitary sewer.

(f) Community buildings shall be located at least fifteen (15) feet from any mobile home or manufactured home.

(g) Community buildings shall be maintained in a clean and sanitary condition at all times. *(Indiana State Department of Health; Reg HSE 21R, Sec 6; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 330; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1766; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-6-7 Water supply distribution systems (Repealed)**

*Sec. 7. (Repealed by Water Pollution Control Board; filed Sep 24, 1987, 3:00 pm: 11 IR 737)*

#### **410 IAC 6-6-7.1 Water supply distribution systems**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 7.1. (a) Each mobile home lot shall be provided with a cold water tap extending at least four (4) inches above the ground surface. In no case shall a stop and waste valve or other device that would allow aspiration or backflow or contaminated water into the potable water system be used.

(b) The individual water and sewer connections on each mobile home lot shall be separated not less than five (5) feet horizontally.

(c) The water supply system shall be capable of furnishing a minimum of two hundred (200) gallons per day per mobile home lot in all mobile home communities constructed after June 14, 1974, as well as in all additions to mobile home communities constructed after the date.

(d) The water supply and distribution system must be as follows:

(1) Installed, maintained, and operated in accordance with 327 IAC 8.

(2) Capable of maintaining water pressure at not less than twenty (20) psi during periods of peak water demand.

*(Indiana State Department of Health; 410 IAC 6-6-7.1; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-6-8 Sewage disposal systems**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 8. (a) A mobile home community shall dispose of sewage through use of a public sewerage system if the sewerage system is available within a reasonable distance from the mobile home community. If a public sewerage system is not available, sewage may be disposed of through use of a private system constructed in accordance with either of the following:

(1) 410 IAC 6-10 for commercial on-site wastewater disposal systems.

(2) Applicable rules of the water pollution control board in the case of sewage disposal facilities other than commercial on-site wastewater disposal systems.

(b) All components of the mobile home community sewage collection and disposal system shall be located in accordance with the provisions of 327 IAC 8 to prevent the possibility of contaminating the:

(1) mobile home community water supply; and

(2) water supplies of surrounding property owners.

(c) Storm water or surface drainage shall not be discharged to the community sewer system receiving sanitary wastes from mobile homes, manufactured homes, and service buildings. Surface drainage shall be diverted away from the sewer and water riser. The rim of the riser tile shall extend at least four (4) inches above ground elevation.

(d) All sewers receiving sanitary wastes shall be constructed as described by the Recommended Standards for Wastewater Facilities, 1997 Edition, as published by the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers except that sanitary sewers may be six (6) inches in diameter.

(e) All sewage disposal facilities that have an effluent discharging into the waters of the state shall be constructed, operated, and maintained in accordance with the requirements of the Indiana department of environmental management.

(f) Sewers shall have manholes constructed at intervals of not more than four hundred (400) feet along the sewer. Manholes shall be installed at every change in size, alignment, or grade of the sewer. (*Indiana State Department of Health; Reg HSE 21R, Sec 8; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 332; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1821; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1767; errata filed Jan 5, 1990, 5:00 p.m.: 13 IR 902; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; errata filed Dec 31, 2003, 12:00 p.m.: 27 IR 1890; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-6-9 Refuse disposal; inoperative motor vehicles**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 9. (a) The mobile home community owner or operator, or both, shall be responsible for the following:

(1) Satisfactory storage, collection, and disposal of refuse.

(2) Ensuring that subsections (b) through (g) are complied with.

(b) Refuse shall be stored in fly-tight water-tight containers that shall be located not more than one hundred fifty (150) feet from any mobile home space. Refuse can liners (also known as trash bags) constructed of plastic, paper, or similar material may not be stored outside the mobile home or manufactured home. Hopper-type containers may be substituted for refuse cans where service permits. When hopper-type units are used they must be placed within a reasonable walking distance from the mobile home spaces to be served.

(c) All refuse containers must be kept in a sanitary condition.

(d) The area around the storage cans shall be kept clean and free of litter.

(e) Refuse shall be disposed of in such a manner that it will not create fly breeding, rodent harborage, odor or smoke nuisances or health, fire or safety hazards.

(f) Garbage or refuse shall not be burned, except at an approved disposal site.

(g) No unlicensed or inoperative motor vehicle shall be allowed to remain in a mobile home community for more than thirty (30) days unless stored in a designated, visually screened area that is at least one hundred (100) feet from the nearest mobile home or manufactured home. (*Indiana State Department of Health; Reg HSE 21R, Sec 9; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 333; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1822; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

#### **410 IAC 6-6-10 Electrical and gas facilities**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 10. (a) All wiring and lighting fixtures shall be installed and maintained in a safe condition.

(b) All gas outlet risers, regulators, meters, valves or other exposed equipment shall be protected by proper location or other means from mechanical damage by vehicles or other causes.

(c) When gas is used, a properly installed system of gas lines and appurtenances that provides gas service adequate for safe operation of appliances and equipment shall be provided. (*Indiana State Department of Health; Reg HSE 21R, Sec 10; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 334; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-6-11 Ground anchors**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27; IC 25-23.7-8-2

Sec. 11. (a) In all mobile home communities and additions to mobile home communities, ground anchors shall be installed on each occupied mobile home lot.

(b) When ground anchors are installed, they shall be installed along each I-beam of the mobile home in a row beginning not more than six (6) feet from each end wall of the mobile home. The ground anchors placed along the I-beams of the mobile home shall not be separated by more than twenty-four (24) feet unless a greater separation distance is certified by a registered professional engineer or architect as providing the same or better protection as that provided by the specified configuration.

(c) Provision for diagonal ties between ground anchors and the mobile home shall be made in conjunction with each vertical tie-down.

(d) Ground anchors exposed to weathering shall be resistant to weathering deterioration at least equivalent to that provided by a coating of zinc on steel of not less than thirty-hundredths (0.30) ounces per square foot of surface coated. Each ground anchor shall be as follows:

(1) Designed to resist an allowable working load equal to or exceeding three thousand one hundred fifty (3,150) pounds.

(2) Capable of withstanding a fifty percent (50%) overload without failure.

(e) After the effective date of this rule, each mobile home or manufactured home installed in a mobile home community shall be installed by a manufactured home installer licensed in accordance with IC 25-23.7-8.

(f) After the effective date of this rule, all new mobile homes or manufactured homes installed in a mobile home community shall be installed in accordance with the manufacturer's installation instructions, as required by IC 25-23.7-8-2.

(g) After the effective date of this rule, all used mobile homes or manufactured homes installed in a mobile home community shall be installed in accordance with the manufacturer's installation instructions, if such installation instructions are available, as required by IC 25-23.7-8-2. (*Indiana State Department of Health; Reg HSE 21R, Sec 11; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 334; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1822; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-6-12 Submission of construction plans**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27; IC 25-31-1-2

Sec. 12. Any person or persons planning the construction, additions to, or significant change in the construction of any mobile home community shall, before the initiation of any such construction, submit plans, drawn to scale, to the department for review and approval. These plans must be certified by a registered engineer or architect licensed to practice in the state of Indiana except, as provided in IC 25-31-1-2(h), registered land surveyors may certify those portions of plans containing only:

(1) platting or subdividing of land; and

(2) gravity sanitary sewers, storms sewers, and tile drains.

(*Indiana State Department of Health; Reg HSE 21R, Sec 12; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 334; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1823; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1767; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-6-13 Swimming pools**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 13. All swimming pools operated as part of a mobile home community shall be operated and maintained in compliance with 410 IAC 6-2.1. Construction of the pool must be in compliance with a plan approved by the department of fire and building services. (*Indiana State Department of Health; Reg HSE 21R, Sec 13; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 335;*

*filed Aug 7, 1981, 2:04 p.m.: 4 IR 1823; filed Feb 8, 1988, 4:10 p.m.: 11 IR 1768; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; errata filed Dec 31, 2003, 12:00 p.m.: 27 IR 1890; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-6-14 Reporting communicable diseases**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 14. (a) Every owner, operator, or attendant operating a mobile home community shall notify the local health office immediately of any suspected communicable or contagious disease within the mobile home community.

(b) No conditions, situation, or installation shall be created, installed, or maintained that may:

(1) cause or result in a health or safety hazard; or

(2) cause or transmit disease or harbor rodents or other vermin.

*(Indiana State Department of Health; Reg HSE 21R, Sec 14; filed Jun 14, 1974, 2:29 p.m.: Rules and Regs. 1975, p. 335; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1823; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-6-14.1 Civil penalties schedule**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 4-21.5-3-8; IC 16-41-27

Sec. 14.1. (a) The department may commence an action under IC 16-41-27-29 and IC 4-21.5-3-8 to levy civil penalties against a mobile home community operator who:

(1) fails to comply with IC 16-41-27 or this rule; or

(2) interferes with or obstructs the department or its designated agent in the performance of duties under IC 16-41-27.

(b) A civil penalty in an amount in the appropriate range specified in this section may be assessed for each day of each violation.

(c) In determining the seriousness of the violation and the specific amount of the civil penalty to be sought for each violation, the department will consider the following:

(1) The potential for harm or imminent threat to public health.

(2) The extent of deviation from statutory or regulatory requirements.

(3) The degree of willfulness or negligence.

(4) A history of noncompliance.

The absence of direct harm will not result in assessment of a lower penalty for a violation.

(d) Unless adjusted as provided for in subsection (e), all penalties shall be in accordance with the following schedule:

| Violation                                |                                    | Range of Penalty |
|------------------------------------------|------------------------------------|------------------|
| Mobile home sites                        | (410 IAC 6-6-2)                    | \$50 to \$100    |
| Mobile home lots                         | (410 IAC 6-6-3)                    | \$50 to \$100    |
| Streets and parking                      | (410 IAC 6-6-4) (IC 16-41-27-15)   | \$10 to \$50     |
| Community lighting                       | (410 IAC 6-6-5) (IC 16-41-27-17)   | \$10 to \$50     |
| Water supply                             | (327 IAC 8-3.3-5) (IC 16-41-27-10) | \$100 to \$1,000 |
| Water risers                             | (327 IAC 8-3.3-5)                  | \$10 to \$50     |
| Sewage disposal                          | (410 IAC 6-6-8) (IC 16-41-27-11)   | \$100 to \$1,000 |
| Sewer risers                             | (410 IAC 6-6-8(c))                 | \$50 to \$100    |
| Refuse disposal                          | (410 IAC 6-6-9) (IC 16-41-27-12)   | \$50 to \$100    |
| Unlicensed or inoperative motor vehicles | (410 IAC 6-6-9(g))                 | \$50 to \$100    |
| Electrical/gas utilities                 | (410 IAC 6-6-10)                   | \$100 to \$500   |
| Mobile home safety                       | (410 IAC 6-6-11)                   | \$10 to \$100    |

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## SANITARY ENGINEERING

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|-------------------------------------------|-----------------------------------|------------------|
| Submission of plans                       | (410 IAC 6-6-12) (IC 16-41-27-22) | \$100 to \$1,000 |
| Swimming pools                            | (410 IAC 6-6-13)                  | \$100 to \$500   |
| Conditions for health and safety          | (410 IAC 6-6-14)                  | \$100 to \$1,000 |
| Domestic animals and house pets           | (IC 16-41-27-16)                  | \$10 to \$100    |
| Attendant or caretaker                    | (IC 16-41-27-9)                   | \$100 to \$500   |
| Interference with department or its agent |                                   | \$100 to \$1,000 |

(e) After determining the appropriate penalty based on the schedule in this section, the department may adjust the penalty to reflect a good faith effort to comply by the owner or operator of a mobile home community.

(f) Each individual penalty will be multiplied by the number of days the particular violation occurred. Penalties for violations occurring in two (2) consecutive inspections by the department shall be assessed on the basis that the violations have remained uncorrected over the period of time between the two (2) inspections.

(g) Penalties for all violations will be totaled and sought under one (1) cause of action.

(h) After filing an action under IC 4-21.5, and in an attempt to resolve violations of IC 16-41-27 and this rule without resort to a hearing, the department may negotiate and enter into agreed orders. An agreed order may suspend all or part of the civil penalty calculated under the requirements and deadlines established in the agreed order. (*Indiana State Department of Health; 410 IAC 6-6-14.1; filed Oct 6, 1989, 4:30 p.m.: 13 IR 279; errata filed Jan 5, 1990, 5:00 p.m.: 13 IR 902; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; errata filed Dec 31, 2003, 12:00 p.m.: 27 IR 1890; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; errata filed Aug 22, 2007, 9:16 a.m.: 20070829-IR-410050328ACA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

### **410 IAC 6-6-15 Incorporation by reference**

Authority: IC 16-19-3-4; IC 16-41-27-8

Affected: IC 16-41-27

Sec. 15. (a) "Recommended Standards for Wastewater Facilities", 1997 Edition, a report of the Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, is hereby incorporated by reference as part of this rule.

(b) Incorporated materials are available from:

Health Education Services, Inc.

P.O. Box 7126

Albany, NY 12224

or available for public review at the department. (*Indiana State Department of Health; 410 IAC 6-6-15; filed Aug 7, 1981, 2:04 p.m.: 4 IR 1823; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Mar 5, 2007, 2:38 p.m.: 20070404-IR-410050328FRA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

## **Rule 7. Camp Sanitation and Safety (Repealed)**

(*Repealed by Indiana State Department of Health; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3757*)

### **Rule 7.1. Campgrounds**

#### **410 IAC 6-7.1-1 Definitions**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 1. The definitions in this rule apply throughout this rule. (*Indiana State Department of Health; 410 IAC 6-7.1-1; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-2 "Bathing beach" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 2. "Bathing beach" means a body of water not contained within a structure, chamber, or tank and used for swimming, diving, or recreational bathing. (*Indiana State Department of Health; 410 IAC 6-7.1-2; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-3 "Campground" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 3. "Campground" means an area or tract of land where campsites are leased or rented and where provisions are made for ten (10) or more tents, recreational vehicles, park models, or vacation mobile homes. A campground is established, operated, and maintained for recreational, health, education, sectarian, business, or tourist activities away from established residences. The term, as used in this rule, does not include primitive campgrounds, youth camps, or tracts of land divided into individually deeded lots. (*Indiana State Department of Health; 410 IAC 6-7.1-3; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-4 "Campsite" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 4. "Campsite" means an individual camping space set aside in a campground for a tent, recreational vehicle, or vacation mobile home. (*Indiana State Department of Health; 410 IAC 6-7.1-4; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-5 "Department" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 5. "Department" means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-7.1-5; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-6 "Dependent campsite" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 6. "Dependent campsite" means a campsite without an individual sewer connection. (*Indiana State Department of Health; 410 IAC 6-7.1-6; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-7 "Gray water" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 7. "Gray water" means wastewater originating from dish washing, hand washing, laundering, showers, or sinks. (*Indiana State Department of Health; 410 IAC 6-7.1-7; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-8 "Independent campsite" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 8. "Independent campsite" means a campsite with individual water and sewer connections. (*Indiana State Department of Health; 410 IAC 6-7.1-8; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-9 "Local health officer" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 9. "Local health officer" means the health officer of any local health department or their authorized representative. (*Indiana State Department of Health; 410 IAC 6-7.1-9; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-10 "Person" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 10. "Person" means any individual, firm, partnership, company, corporation, trustee, association, municipality, county, authority, estate, or public or private entity owning, conducting, controlling, managing, or operating a campground. (*Indiana State Department of Health; 410 IAC 6-7.1-10; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3743; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-11 "Primitive campground" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 11. "Primitive campground" means an area or tract of land without water supply systems, electricity, or toilets and having no vehicular access. (*Indiana State Department of Health; 410 IAC 6-7.1-11; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-12 "Public sewer" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 12. "Public sewer" means a sewage disposal facility provided by a utility, municipality, conservancy district, or regional sewer district. (*Indiana State Department of Health; 410 IAC 6-7.1-12; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-13 "Public water supply" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 13. "Public water supply" means water supplied by a utility, municipality, conservancy district, regional water district, rural water corporation, or not-for-profit water corporation. (*Indiana State Department of Health; 410 IAC 6-7.1-13; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-14 "Recreational vehicle" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 14. "Recreational vehicle" means a travel trailer, park model, collapsible trailer, truck-mounted camper, or motor home. (*Indiana State Department of Health; 410 IAC 6-7.1-14; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-15 "Sanitary dumping station" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 15. "Sanitary dumping station" means a sewage inlet with cover surrounded by a concrete apron sloped to a drain, and a water outlet. The sanitary dumping station is for disposal of recreational vehicle holding tank waste. (*Indiana State Department of Health; 410 IAC 6-7.1-15; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-16 "Temporary campground" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 16. "Temporary campground" means a campground operated not more than ten (10) consecutive days per event and not more than thirty (30) days a calendar year. Temporary campgrounds are under the jurisdiction of local health officers. (*Indiana State Department of Health; 410 IAC 6-7.1-16; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-17 "Tent" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 17. "Tent" means a shelter with twenty-five percent (25%) or more of its walls or roof, or both, made of fabric. (*Indiana State Department of Health; 410 IAC 6-7.1-17; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-18 "Vacation mobile home" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 18. "Vacation mobile home" means a manufactured housing unit not on a permanent foundation used for recreational living on a temporary basis and not occupied as a principal residence. (*Indiana State Department of Health; 410 IAC 6-7.1-18; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-19 "Water station" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 19. "Water station" means a facility for filling water storage containers with potable water from an approved water system. (*Indiana State Department of Health; 410 IAC 6-7.1-19; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-20 Construction permit requirement**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 20. (a) Any person or persons planning the construction, addition to, or significant change in the construction of any campground shall, at least ninety (90) days prior to the initiation of any such construction, submit plans, drawn to scale, for review and approval by the department. These plans must be certified by a registered engineer or architect licensed to practice in Indiana.

(b) The department may waive the requirement for plan review for any project that it deems to be a minor alteration. (*Indiana State Department of Health; 410 IAC 6-7.1-20; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; errata filed Jul 8, 2002, 1:47 p.m.: 25 IR 3769; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-21 Campgrounds and campsites**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 21. (a) Campgrounds shall have designated campsites, and each site shall be plainly marked with a different number.

(b) No more than one (1) recreational vehicle or one (1) vacation mobile home shall be allowed on a designated campsite at the same time.

(c) The campground owner or operator shall have a plan of the campground. The plan must show the location of each designated campsite with the number assigned to it, and the location of any community buildings, wells, sanitary dumping stations, swimming pools, or sewage disposal systems. (*Indiana State Department of Health; 410 IAC 6-7.1-21; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3744; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-22 Conditions for health and safety**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 22. No condition, situation, or installation shall be created, installed, or maintained that:

(1) may cause or result in a health or safety hazard; or

(2) may cause or transmit disease or harbor rodents or other vermin.

(*Indiana State Department of Health; 410 IAC 6-7.1-22; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3745; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-23 Campground water supplies**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 23. (a) Campgrounds shall be provided with an adequate and convenient supply of potable water that meets 327 IAC 8. Potable water shall always be available for culinary, drinking, laundry, and bathing purposes.

(b) Wells shall be constructed, installed, and located in accordance 327 IAC 8 and 312 IAC 13. The construction and location of all campground wells with less than fifteen (15) service connections or serving less than twenty-five (25) people shall comply with all the requirements of this rule.

(c) A campground shall exclusively use a public water supply if public water is available within a reasonable distance. If a public water supply is not available, a campground shall have water supplied from a well that complies with the requirements of 327 IAC 8.

(d) Campground water supply and distribution systems shall have the capacity to deliver a minimum water pressure of twenty (20) pounds per square inch to all water stations and connections during periods of peak water usage. The water supply shall have capacity to meet total daily water demands. If a well or pump cannot meet peak or daily water demand, campgrounds shall be provided with sufficient usable storage capacity to meet the demand.

(e) The casing pipe of a well shall project not less than:

(1) twenty-four (24) inches above floor level or finished grade; or

(2) thirty-six (36) inches above the regulatory flood elevation if located in a designated flood hazard area identified by the Federal Emergency Management Agency.

(f) Water supplies shall have no well head, well casing, pump, pumping machinery, exposed pressure tanks, or suction piping located in any pit, room, or space, walled in or enclosed so it does not have free drainage by gravity to the ground surface at all times.

(g) Each campground shall provide one (1) or more accessible water stations of an approved design and located so no campsite is more than two hundred (200) feet from a water station. Water stations and sanitary dumping stations shall be a minimum of fifty (50) feet apart. A water station having an inside or outside threaded faucet shall have a pressure vacuum breaker installed to protect against back-flow.

(h) In lieu of water stations, individual water riser pipes may be installed at each campsite.

(i) Water riser pipes shall be located and constructed to protect against damage from parking of recreational vehicles.

(j) Water riser pipes shall:

(1) be at least one-half ( $\frac{1}{2}$ ) inch in diameter;

(2) extend at least four (4) inches above ground; and

(3) be separated from sewer risers by not less than five (5) feet horizontally.

(k) Stop-and-waste valves or yard hydrants that would allow aspiration or backflow of contaminated water into the potable water system shall not be used.

(l) Wells and potable water distribution systems shall be disinfected after construction and after each repair. The water supply shall be tested and be bacteriologically acceptable in at least two (2) consecutive samples collected at least twenty-four (24) hours apart before it can be used. Each camper shall be advised to boil potable water until sample results reveal a safe water supply.

(m) There shall be no direct physical connection between the campground potable water supply system and any nonpotable water supply system. (*Indiana State Department of Health; 410 IAC 6-7.1-23; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3745; errata filed Aug 19, 2002, 1:57 p.m.: 26 IR 36; errata filed Aug 22, 2007, 9:18 a.m.: 20070829-IR-410070546ACA; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.1-24 Campground sewage disposal**

Authority: IC 16-19-3-4

Affected: IC 13-18-12; IC 16-19-3

Sec. 24. (a) All sewage generated by a campground, including gray water, shall be disposed of via a connection to a public sewer if available within a reasonable distance from the campground. If a public sewer is not available within a reasonable distance, sewage disposal must comply with 410 IAC 6-12, 410 IAC 6-10, Bulletin S.E. 11, Bulletin S.E. 13, or applicable rules of the Indiana department of environmental management.

(b) If individual sewer connections are provided for recreational vehicles, these connections shall meet the following minimum requirements:

(1) Each individual sewer riser shall be at least four (4) inches in diameter.

(2) Each individual sewer connection shall be tightly capped when a recreational vehicle is not connected.

(3) The rim of the riser pipe shall extend four (4) inches above the ground, and surface drainage shall be diverted away from the riser.

(c) Only wastewater management businesses licensed pursuant to IC 13-18-12 shall clean campground privies and portable toilets of waste. Privies must be pumped when the accumulated waste is within eighteen (18) inches of the privy floor. (*Indiana State Department of Health; 410 IAC 6-7.1-24; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3745; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.1-25 Sanitary dumping station**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 25. (a) All campgrounds, except those having only independent campsites, shall have at least one (1) sanitary dumping station for each two hundred fifty (250) dependent campsites or fraction thereof.

(b) Each sanitary dumping station must be equipped with the following:

- (1) A four (4) inch sewer riser pipe with a self-closing hinged cover or other tight-fitting closure.
- (2) A concrete apron at least three (3) feet in diameter and sloped to drain the area surrounding the inlet of the riser pipe.
- (3) A water outlet for sanitary maintenance of the station.
- (4) A sign located at the water outlet which states that the water is not for drinking, but for flushing and cleaning holding tanks and the dump station area.
- (5) A vacuum breaker installed downstream of the last shut-off valve that meets the requirements of 675 IAC 16.

(c) Sanitary dumping stations shall be capable of receiving a sewage flow of at least twenty (20) gallons per day for each dependent campsite served.

(d) Sanitary dumping stations utilizing holding tanks shall be capable of receiving a sewage flow of at least sixty (60) gallons per day for each dependent campsite served. (*Indiana State Department of Health; 410 IAC 6-7.1-25; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3746; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.1-26 Campground sanitary facilities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 26. (a) A campground with dependent campsites shall have flush toilets, sanitary vault privies, or portable toilets, in the following ratios:

| Number of Dependent<br>Campsites | Toilet Facilities |       | Urinals* |
|----------------------------------|-------------------|-------|----------|
|                                  | Men               | Women | Men      |
| 1-15                             | 1                 | 1     | 0        |
| 16-30                            | 1                 | 2     | 1        |
| 31-45                            | 2                 | 3     | 1        |
| 46-60                            | 2                 | 4     | 2        |
| 61-100                           | 3                 | 5     | 2        |

\*Toilets may be substituted for the required number of urinals on a one-for-one basis.

(b) Campgrounds with more than one hundred (100) dependent campsites shall be provided with one (1) flush toilet, sanitary vault privy, or portable toilet for each sex in the ratio of one (1) per thirty (30) dependent campsites and one (1) urinal for each one hundred (100) additional campsites.

(c) The entrance to a sanitary facility shall have a sign to designate which sex may use the facility. Solid walls extending from floor to ceiling shall separate facilities for each sex located in the same building.

(d) For all common use rooms that contain sanitary or laundry facilities, excluding sanitary vault privies and portable toilets, the following minimum requirements shall apply:

- (1) Floors, walls, and partitions around showers, lavatories, and other plumbing fixtures shall be smooth, nonabsorbent, and easily cleanable.
- (2) Bathing and hand washing facilities shall have hot and cold water under pressure. Bathing facilities shall have an approved, properly operating automatic temperature control valve. The valve must control the water temperature at the point of use so it will not exceed one hundred twenty (120) degrees Fahrenheit.
- (3) An operating mechanical exhaust device is required and must replace the air in the facility at least six (6) times per hour.
- (4) Exterior openings shall be screened utilizing screening of not less than sixteen (16) mesh.
- (5) Entrances to toilet and bathing facilities shall have self-closing doors.
- (6) Toilet and bathing facilities shall be configured to prevent viewing of the interior through the entrance door.
- (7) Light fixtures shall have guards or shields to prevent shattering.
- (8) At least twenty (20) foot-candles of light measured thirty (30) inches above the floor must be provided throughout the interior of any permanent facility within a campground.

- (e) Campground plumbing fixtures shall comply with 675 IAC 16.
- (f) Privies shall be constructed and maintained in compliance with Bulletin S.E. 11.
- (g) Where electricity is available, campground privy interiors must have artificial illumination. Where electricity is not available, privies must be configured to allow natural light to enter for illumination.
- (h) Campground sanitary facilities shall be:
  - (1) maintained in a clean condition and in good repair;
  - (2) properly lighted; and
  - (3) ventilated.

*(Indiana State Department of Health; 410 IAC 6-7.1-26; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3746; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

#### **410 IAC 6-7.1-27 Swimming pools and bathing beaches**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 27. (a) Swimming pools shall comply with 410 IAC 6-2 and 675 IAC 20.

(b) Bathing beaches shall comply with the following:

- (1) Campground bathing beaches shall have a water surface area of at least one (1) acre.
- (2) A minimum of twenty-five (25) square feet of water surface per bather shall be provided in areas having a water depth less than four (4) feet.
- (3) At least seventy-five (75) square feet of water surface per bather shall be provided in areas over four (4) feet deep.
- (4) A minimum of thirty-five (35) square feet of land area shall be provided per bather.
- (5) The campground bathing beach, from the shoreline out to a water depth of six (6) feet, shall consist of sand or pea gravel or other material to minimize turbidity.
- (6) Floating marker lines securely anchored with buoys, spaced at intervals of no more than twenty-five (25) feet, shall be provided to designate the perimeter of the bathing area. Marker lines shall delineate the separation between the shallow (less than five (5) feet), deep, and diving areas. Depth markers shall be provided at diving areas.
- (7) Toilet facilities shall be provided within five hundred (500) feet of the campground bathing beach, in the ratio of one (1) toilet for each fifty (50) bathers. Where flush toilets are provided, lavatories shall be provided in the ratio of one (1) lavatory for each fifty (50) bathers.
- (8) Water samples shall be collected at the campground bathing beach for bacteriological examination and submitted to an approved laboratory for analysis. Samples shall be submitted in accordance with the following:
  - (A) One (1) sample at least two (2) weeks prior to opening.
  - (B) One (1) sample each week the bathing beach is open thereafter.
  - (C) One (1) sample after a heavy rainfall of at least one-half ( $\frac{1}{2}$ ) inch.
- (9) Bathing beach samples shall be collected within one (1) foot of the surface, in water having a depth of at least three (3) feet, but no more than six (6) feet and at least twenty (20) feet from swimmers and animals.
- (10) The bathing beach must be closed if the beach water quality does not meet the following water quality standards:
  - (A) *Escherichia coli* form bacteria, using the membrane filter count, exceeds one hundred twenty-five (125) colonies per one hundred (100) milliliters as a geometric mean based on no less than five (5) samples equally spaced over a thirty (30) day period.
  - (B) *Escherichia coli* form bacteria using the membrane filter count exceeds two hundred thirty-five (235) colonies per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.
  - (C) The water has aquatic vegetation, deposits, growths, oil, grease, chemicals, or other substances capable of creating toxic reactions, skin, or membrane irritations, or a health or safety hazard.
- (11) Results of each camp bathing beach water sample analysis must be reported to the department.
- (12) The minimum safety equipment required at all bathing beaches shall include:
  - (A) a rescue tube; and
  - (B) a ring buoy with an attached rope at least forty-five (45) feet in length.

(13) Safety equipment shall be kept clean, in good repair, and ready for use.

*(Indiana State Department of Health; 410 IAC 6-7.1-27; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3747; errata filed Aug 19, 2002, 1:57 p.m.: 26 IR 36; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.1-28 Refuse collection and disposal**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 28. (a) Refuse, including garbage, shall be collected, stored, and disposed of properly so the campground is clean and litter free. Refuse shall not accumulate in a manner that could:

(1) result in rodent harborage or promote insect breeding; or

(2) cause a fire, safety, or health hazard.

(b) Each garbage can and dumpster in a campground shall be covered with a tight-fitting lid.

(c) Garbage and refuse collection and disposal shall occur at least once a week or more often when necessary.

(d) Community dumpsters shall be at least twenty-five (25) feet from any campsite. *(Indiana State Department of Health; 410 IAC 6-7.1-28; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3747; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.1-29 Electrical distribution system**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 29. (a) After the effective date of this rule, all new wiring, lighting, and electrical hook-ups shall be installed in compliance with 675 IAC 17. Existing wiring, lighting, and electrical hook-ups shall be installed and maintained in a safe condition.

(b) Fifteen (15) and twenty (20) ampere, one hundred twenty-five (125) volt receptacles at sanitary facilities shall have approved ground fault circuit interrupter protection.

(c) Electrical receptacles shall have wiring and circuit breakers or fuses sized to conform to the amperage of the receptacle they supply.

(d) Switches, circuit breakers, receptacles, control equipment, and metering devices located in wet places or outside a building shall be weatherproof.

(e) Splices in electrical wires in accessible locations shall be made in approved junction boxes.

(f) When underground conductors enter or leave a building or a trench, they shall have mechanical protection from physical damage. The protection must be rigid conduit, intermediate metal conduit, rigid nonmetallic conduit, schedule 80 electrical plastic tubing, or other mechanical means. Underground conductors in conduit shall be a minimum of eighteen (18) inches below finished grade. Underground conductors not in conduit shall be a minimum of twenty-four (24) inches below finished grade.

(g) Electrical equipment and conductors shall not be attached to trees. *(Indiana State Department of Health; 410 IAC 6-7.1-29; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.1-30 Emergency equipment and services**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 30. Telephone service shall be made available to all campers, and access shall be provided at all times to such service for emergency use. *(Indiana State Department of Health; 410 IAC 6-7.1-30; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.1-31 Registration**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 31. A register containing the name and home address of the campsite occupant and the dates of arrival and departure must be maintained and available for inspection by the department or the local health officer. (*Indiana State Department of Health; 410 IAC 6-7.1-31; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-32 Right of entry**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 32. The department or the local health officer may enter public or private property at reasonable times and, upon presentation of credentials, to do any of the following:

- (1) Inspect facilities, equipment, or records.
- (2) Investigate allegations, conduct tests, or collect samples.
- (3) Obtain information necessary to the issuance of a permit pursuant to this rule.
- (4) Determine whether any person is subject to, or in violation of, this rule or a permit issued pursuant to this rule.

(*Indiana State Department of Health; 410 IAC 6-7.1-32; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-33 Local authorities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 33. Local health officers may enforce the rules of the department. County and municipal authorities within their respective jurisdictions have jurisdiction over zoning, building codes, and ordinances pertaining to campgrounds. (*Indiana State Department of Health; 410 IAC 6-7.1-33; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-34 Incorporation by reference**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 34. Bulletin S.E. 11 and Bulletin S.E. 13 are incorporated by reference as part of this rule. Copies of these bulletins may be obtained by request to the department. (*Indiana State Department of Health; 410 IAC 6-7.1-34; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.1-35 Enforcement**

Authority: IC 16-19-3-4

Affected: IC 4-21.5-3-6; IC 4-21.5-3-8; IC 16-19-3

Sec. 35. The department may commence an action under IC 16-19-3-4, IC 16-19-3-5, and IC 4-21.5-3-6, or IC 4-21.5-3-8 against a campground operator who:

- (1) fails to comply with this rule; or
- (2) interferes with or obstructs the department or its designated agent in the performance of duties pursuant to this rule.

(*Indiana State Department of Health; 410 IAC 6-7.1-35; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3748; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

## **Rule 7.2. Youth Camps**

### **410 IAC 6-7.2-1 Definitions**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 1. The definitions in this rule apply throughout this rule. (*Indiana State Department of Health; 410 IAC 6-7.2-1; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

### **410 IAC 6-7.2-2 "Bathing beach" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 2. "Bathing beach" means a body of water not contained within a structure, chamber, or tank and used for swimming, diving, or recreational bathing. (*Indiana State Department of Health; 410 IAC 6-7.2-2; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

### **410 IAC 6-7.2-3 "Camp" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 3. "Camp" means a youth camp. (*Indiana State Department of Health; 410 IAC 6-7.2-3; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

### **410 IAC 6-7.2-4 "Department" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 4. "Department" means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-7.2-4; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

### **410 IAC 6-7.2-5 "Designated adult" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 5. "Designated adult" means the individual with the primary responsibility for health matters, food, staff supervision, the administration of program operations, and business and transportation services. (*Indiana State Department of Health; 410 IAC 6-7.2-5; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

### **410 IAC 6-7.2-6 "Gray water" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 6. "Gray water" means wastewater originating from dish washing, hand washing, laundering, showers, or sinks. (*Indiana State Department of Health; 410 IAC 6-7.2-6; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-7 "Local health officer" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 7. "Local health officer" means the health officer of any local health department or their authorized representative. (*Indiana State Department of Health; 410 IAC 6-7.2-7; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-8 "Person" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 8. "Person" means any individual, firm, partnership, company, corporation, trustee, association, municipality, county, authority, estate, or public or private entity owning, conducting, controlling, managing, or operating a camp. (*Indiana State Department of Health; 410 IAC 6-7.2-8; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-9 "Primitive camp" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 9. "Primitive camp" means a youth camp that operates at a site having only tents. (*Indiana State Department of Health; 410 IAC 6-7.2-9; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-10 "Public sewer" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 10. "Public sewer" means a sewage disposal facility provided by a utility, municipality, conservancy district, or regional sewer district. (*Indiana State Department of Health; 410 IAC 6-7.2-10; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-11 "Public water supply" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 11. "Public water supply" means water supplied by a utility, municipality, conservancy district, regional water district, rural water corporation, or not-for-profit water corporation. (*Indiana State Department of Health; 410 IAC 6-7.2-11; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-12 "Tent" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 12. "Tent" means a shelter having twenty-five percent (25%) or more of its walls or roof, or both, covered by fabric material. (*Indiana State Department of Health; 410 IAC 6-7.2-12; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3749; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-13 "Water station" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 13. "Water station" means a facility for filling water storage containers with potable water from an approved water system. (*Indiana State Department of Health; 410 IAC 6-7.2-13; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-14 "Youth camp" defined**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 14. "Youth camp" means any area or tract of land established, operated, or maintained to provide more than seventy-two (72) continuous hours of outdoor group living experiences away from established residences for educational, recreational, sectarian, or health purposes to ten (10) or more children who are under eighteen (18) years of age and not accompanied by a parent or guardian. (*Indiana State Department of Health; 410 IAC 6-7.2-14; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-15 Construction permit requirement**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 15. Any person planning the construction, addition to, or significant change in the construction of any youth camp shall, at least ninety (90) days prior to the initiation of any such construction, submit plans, drawn to scale, for review and approval by the department. These plans must be certified by a registered engineer or architect licensed to practice in Indiana. (*Indiana State Department of Health; 410 IAC 6-7.2-15; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-16 General supervision**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 16. When a youth camp is in session, there shall be a designated adult on the premises who is responsible for compliance with this rule. (*Indiana State Department of Health; 410 IAC 6-7.2-16; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-17 General health**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 17. (a) When a youth camp is in session, there shall be an individual present who is designated as the health supervisor and who has completed at least the Red Cross Standard First Aid Course or its equivalent.

(b) A member of the camp health staff shall conduct a health screening of each camper to identify any illness or communicable disease. The screening shall:

(1) occur not more than twelve (12) hours after arrival at camp; and

(2) include a check of medications in use by each camper.

(c) Youth camps owners shall possess an original or a copy of an up to date medical log. The medical log shall be in permanent ink and be a record of the dates, times, patient names, ailments, treatments, names of attending staff, and signature of the person who made the entries into the log.

(d) Medication prescribed for campers or staff members shall be dispensed from original containers.

(e) Medications, except those a physician prescribed for self-administration, shall be locked in a cabinet, box, or drawer or stored in a safe place inaccessible to children.

(f) Whenever there is an injury or illness to a camper that results in hospitalization, a positive x-ray or laboratory analysis, or the camper is being sent home, a report shall be sent to the department. This report shall be:

(1) made on a form acceptable to the department; and

(2) filed with the department within ten (10) days of an incident.

(g) Whenever there is an injury or illness that results in the death of a camper or staff member, a report of the incident and death shall be filed with the department within twenty-four (24) hours of the death.

(h) The use of tobacco products is prohibited in buildings used by children. The use of tobacco products or alcoholic beverages is prohibited in a youth camp while it is in operation. (*Indiana State Department of Health; 410 IAC 6-7.2-17; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; filed Aug 29, 2003, 10:30 a.m.: 27 IR 98; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.2-18 Infirmary**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 18. (a) Youth camps constructed after the effective date of this rule shall include a separate room with toilet and lavatory facilities to be used as an infirmary and isolation area.

(b) The separate room described in subsection (a) shall have the following:

(1) Ventilation to keep it free of excessive heat, condensation, vapors, noxious odors, and fumes.

(2) Heating equipment capable of maintaining a temperature of at least sixty-eight (68) degrees Fahrenheit.

(3) At least one (1) cot per one hundred (100) campers and staff, with a minimum of two (2) cots.

(4) At least one (1) adult shall be present when campers are in the infirmary.

(5) At least seventy (70) foot-candles of light measured thirty (30) inches from the floor.

(*Indiana State Department of Health; 410 IAC 6-7.2-18; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3750; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.2-19 First aid kits**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 19. (a) First aid kits shall be available to camp staff at food service operations, beaches, the infirmary, the camp office, primitive camps, and readily available in a timely manner to all program areas. First aid may be administered only by properly trained staff.

(b) As a minimum, each first aid kit must include the following:

(1) One (1) watertight medication canister.

(2) Thirty (30) adhesive bandages, each measuring one (1) inch by three (3) inches.

(3) One (1) roll of adhesive tape measuring one-half (½) inch by ten (10) yards.

(4) Nine (9) antiseptic towelettes.

(5) Two (2) disposable gloves, such as surgical or examination type.

(6) One (1) triangular bandage.

(7) Six (6) sponge dressing pads, each measuring two (2) inches by two (2) inches.

(8) Four (4) sponge dressing pads, each measuring three (3) inches by three (3) inches.

(9) Two (2) sponge dressing pads, each measuring four (4) inches by four (4) inches.

(10) One (1) instant ice compress measuring at least six (6) inches by four (4) inches.

(11) Two (2) large fabric fingertip bandages.

(12) Two (2) large fabric knuckle bandages.

- (13) Two (2) island bandages each measuring two (2) inches by three (3) inches.
- (14) Two (2) adhesive Telfa bandages each measuring two (2) inches by two (2) inches.
- (15) One (1) eye pad.
- (16) Three (3) providone-iodine pads.
- (17) Six (6) alcohol cleansing pads.
- (18) Three (3) tubes of triple-antibacterial cream.
- (19) One (1) conform bandage roll measuring two (2) inches by five (5) yards.
- (20) One (1) pair of scissors.
- (21) One (1) pair of tweezers.
- (22) One (1) emergency blanket.
- (23) One (1) refillable plastic case.

(c) First aid materials shall be wrapped and stored so they do not become contaminated. (*Indiana State Department of Health; 410 IAC 6-7.2-19; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3751; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.2-20 Records**

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

Sec. 20. (a) A record for each camper must be maintained by the designated adult operating a camp and shall contain the following:

- (1) The camper's name and address.
- (2) The name, address, and telephone number of the camper's parent, legal guardian, or designated adult emergency contact.
- (3) Authorization from the parent or guardian for emergency medical care.
- (4) A list of relevant health conditions that camp personnel may encounter.

(b) Records required by this rule shall be kept on file by the designated adult for a period of at least two (2) years. (*Indiana State Department of Health; 410 IAC 6-7.2-20; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3751; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

#### **410 IAC 6-7.2-21 Campsites and safety**

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

Sec. 21. (a) No condition, situation, or installation shall be created, installed, or maintained that:

- (1) may cause or result in a health or safety hazard; or
- (2) cause or transmit disease or harbor rodents or other vermin.

(b) An accurate plat of the camp shall be maintained that shows the location of buildings, wells, privies, sewage disposal systems, sanitary facilities, swimming areas, and water and sewer lines.

(c) The central camp areas, primitive camps, and program areas shall be maintained to minimize the growth of poison ivy, poison oak, poison sumac, and other noxious plants.

(d) The camp shall be free of debris or other hazards.

(e) Building stairways over four (4) steps in height shall have handrails.

(f) Equipment and facilities in camps shall be designed, installed and maintained in a safe condition. Playground equipment shall be securely anchored.

(g) When not in use, archery equipment, firearms, and ammunition shall be locked in a cabinet or building.

(h) Poisonous substances, pool chemicals, pesticides, and toxic chemicals shall be clearly marked and stored in locked cabinets or enclosures. (*Indiana State Department of Health; 410 IAC 6-7.2-21; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3751; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-22 Emergency equipment and procedures**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 22. (a) Telephone service shall be provided to each youth camp as follows:

(1) Telephone service shall always be accessible at youth camps.

(2) The telephone number of the nearest fire department, police department, poison control center, and emergency medical service shall be posted next to each telephone. Where 911 service is available, only the poison control center telephone number must be posted.

(b) A written emergency plan for dealing with natural disasters, lost campers, and other emergencies must be developed and maintained. At a minimum, the plan shall include procedures for evacuation and transportation to emergency facilities. Camp staff shall be trained on the plan and a record of the training shall be kept by a responsible adult. Campers shall be advised of their responsibilities in following the plan.

(c) Camps offering aquatic activities must have an emergency plan that includes procedures for rescues, accounting for each camper, evacuations, and the method for notification of emergency services. Weekly orientation in using the aquatic emergency plan must be conducted. (*Indiana State Department of Health; 410 IAC 6-7.2-22; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3752; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-23 Fire and building safety**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 23. (a) Each youth camp shall be equipped with a minimum of a 4-A, 60-B:C, ten (10) pound, multipurpose, dry chemical, pressure fire extinguisher within one hundred (100) feet of each kitchen, furnace room, and sleeping facilities.

(b) Fire extinguishers must be readily accessible and maintained in an operable condition.

(c) Exits from structures must be maintained free of obstructions and have exit signs clearly posted.

(d) Buildings with occupancy of more than ten (10) persons shall have at least two (2) separate and independent exits. Exits shall not be closer to each other than fifty percent (50%) of the longest exterior dimension of the building.

(e) Buildings with occupancy above the first floor shall have two (2) separate and independent exits. At least one (1) exit shall lead directly to the outside.

(f) A one-room building used for sleeping shall be equipped with a smoke detector.

(g) Buildings with two (2) or more compartmentalized sleeping rooms shall have hard-wired interconnected smoke detectors.

(h) All required smoke detectors shall be UL listed.

(i) All required smoke detectors shall be kept clean and tested monthly.

(j) Fire drills shall be held within twenty-four (24) hours of the beginning of each camping session and weekly thereafter.

(k) Gasoline and other flammable fluids shall be marked and stored in locked containers or in locked buildings not occupied by campers.

(l) Gasoline and other flammable fluids shall be stored at least fifty (50) feet from sleeping quarters. (*Indiana State Department of Health; 410 IAC 6-7.2-23; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3752; errata filed Aug 19, 2002, 1:57 p.m.: 26 IR 36; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-24 Electrical safety**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 24. (a) Wiring, lighting, and electrical receptacles shall be installed and maintained in a safe condition.

(b) Fifteen (15) and twenty (20) ampere, one hundred twenty-five (125) volt receptacles in sanitary facilities, bathrooms, garages, or maintenance buildings or located outside of buildings shall be equipped with ground-fault circuit interrupter protection.

(c) Electrical receptacles shall have wiring and circuit breakers or fuses sized to conform to the amperage of the receptacles

they supply.

(d) Electrical switches, circuit breakers, receptacles, control equipment, and metering devices located in wet places or outside of a building shall be weatherproof.

(e) Splices to electrical wires at accessible locations shall be made utilizing approved junction boxes.

(f) In areas subject to vehicle movement, service drop conductors of not over six hundred (600) volts nominal, shall be at least eighteen (18) feet above the ground surface. In other areas, the minimum clearance shall be ten (10) feet above the ground surface.

(g) Electrical equipment and conductors shall not be attached to trees.

(h) Electrical receptacles shall be grounded and shall not have an open neutral, open hot conductor, or reverse polarity.

(i) Loose electrical equipment shall be secured. Face plates and panel fronts shall be in place to prevent accidental contact. *(Indiana State Department of Health; 410 IAC 6-7.2-24; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3752; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

#### **410 IAC 6-7.2-25 Water supplies**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 25. (a) Camps shall be provided with an adequate and convenient supply of potable water that meets the Indiana department of environmental management public water supply drinking water quality standard found in 327 IAC 8. Potable water shall always be available for culinary, drinking, laundry, and bathing purposes.

(b) Wells shall be constructed, installed, and located in accordance with 327 IAC 8 and 312 IAC 13.

(c) A camp shall exclusively use a public water supply if public water is available within a reasonable distance. If a public water supply is not available, a camp shall have water supplied from a well that complies with 327 IAC 8.

(d) The construction and location of all camp wells with less than fifteen (15) service connections or serving less than twenty-five (25) people shall comply with all the requirements of this rule.

(e) Camp water supply and distribution systems shall have the capacity to deliver a minimum water pressure of twenty (20) pounds per square inch to all water stations and connections during periods of peak water usage. The water supply shall have capacity to meet total daily water demands. If a well or pump cannot meet peak or daily water demand, camps shall be provided with sufficient usable storage capacity to meet the demand.

(f) The casing pipe of a well shall project not less than:

(1) twenty-four (24) inches above floor level or finished grade; or

(2) thirty-six (36) inches above the regulatory flood elevation if located in a designated flood hazard area identified by the Federal Emergency Management Agency.

(g) Water supplies shall have no well head, well casing, pump, pumping machinery, exposed pressure tanks, or suction piping located in any pit, room, or enclosed space that does not have free drainage, by gravity, to the ground surface at all times.

(h) Wells and potable water distribution systems shall be disinfected after construction and after a repair. The water shall be tested and be bacteriologically acceptable in at least two (2) consecutive samples collected at least twenty-four (24) hours apart before the potable water system can be used.

(i) There shall be no direct physical connection between the camp potable water supply system and any nonpotable water supply system.

(j) Stop-and-waste valves or yard hydrants that would allow aspiration or back flow of contaminated water into the potable water system shall not be used.

(k) Common drinking cups are not permitted.

(l) When potable water is transported, it shall be in closed, disinfected containers used for no other purpose.

(m) Plumbing fixtures shall comply with 675 IAC 16. *(Indiana State Department of Health; 410 IAC 6-7.2-25; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3753; errata filed Aug 19, 2002, 1:57 p.m.: 26 IR 36; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA; errata filed Aug 12, 2008, 9:42 a.m.: 20080903-IR-410080671ACA)*

**410 IAC 6-7.2-26 Sewage disposal**

Authority: IC 16-19-3-4

Affected: IC 13-18-12; IC 16-19-3

Sec. 26. (a) Sewage shall be disposed of by a connection to a public sewer, if available within a reasonable distance from the camp. If a public sewer is not available within a reasonable distance from the camp, sewage disposal must comply with 410 IAC 6-12, 410 IAC 6-10, Bulletin S.E. 11, Bulletin S.E. 13, or applicable rules of the Indiana department of environmental management for sewage disposal facilities other than sanitary vault privies or septic tank soil-absorption systems.

(b) Only wastewater management businesses licensed pursuant to IC 13-18-12 shall clean camp privies and portable toilets of waste. Privies must be pumped when the accumulated waste is within eighteen (18) inches of the privy floor. (*Indiana State Department of Health; 410 IAC 6-7.2-26; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3753; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-27 Sanitary facilities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 27. (a) The entrance to a sanitary facility shall have a sign to designate which sex may use the facility. Solid walls extending from floor to ceiling shall separate facilities for each sex located in the same building.

(b) Toilets, urinals, hand washing, and bathing facilities shall be provided as follows:

**Males**

| Individuals to be served | Showers | Lavatories | Toilets | Urinals* |
|--------------------------|---------|------------|---------|----------|
| 1-10                     | 1       | 2          | 1       | 1        |
| 11-20                    | 2       | 2          | 1       | 1        |
| 21-30                    | 2       | 3          | 2       | 1        |
| 31-40                    | 3       | 4          | 2       | 2        |
| 41-50                    | 4       | 5          | 3       | 2        |
| 51-60                    | 5       | 6          | 3       | 3        |
| 61-70                    | 6       | 7          | 4       | 3        |

\*Toilets may be substituted for the appropriate number of urinals.

**Females**

| Individuals to be served | Showers | Lavatories | Toilets |
|--------------------------|---------|------------|---------|
| 1-10                     | 1       | 2          | 2       |
| 11-20                    | 2       | 2          | 2       |
| 21-30                    | 2       | 3          | 3       |
| 31-40                    | 3       | 4          | 4       |
| 41-50                    | 4       | 5          | 5       |
| 51-60                    | 5       | 6          | 6       |
| 61-70                    | 6       | 7          | 7       |

(c) Camps serving more than seventy (70) campers shall have sanitary facilities for each sex in the ratio of one (1) shower, lavatory, and toilet or urinal for each fifteen (15) additional campers.

(d) Showers or lavatories are not required at primitive camps.

(e) For all common use rooms that contain sanitary or laundry facilities, excluding sanitary vault privies and portable toilets, the following minimum requirements shall apply:

(1) Floors, walls, and partitions around showers, lavatories, and other plumbing fixtures shall be smooth, nonabsorbent, and easily cleanable. Floors in hand washing and shower rooms shall have a nonskid finish and trapped floor drains.

(2) Bathing and hand washing facilities shall have hot and cold water under pressure. Bathing facilities shall have an approved properly operating, approved automatic hot water temperature control valve. The valve must control the water temperature at the point of use so it will not exceed one hundred twenty (120) degrees Fahrenheit.

- (3) An operating mechanical exhaust device must replace the air in the facility at least six (6) times per hour.
- (4) Exterior openings shall be screened with at least sixteen (16) mesh screen to prevent the entrance of insects.
- (5) Entrances to toilets and bathing facilities shall have self-closing doors.
- (6) Toilet and bathing facilities shall be configured to prevent viewing of the interior through the entrance door.
- (7) Light fixtures shall have guards or shields to prevent shattering.
- (8) At least twenty (20) foot-candles of light measured thirty (30) inches above the floor must be provided throughout the interior of the facility.
- (9) Lavatories shall have mixing or combination faucets. Self-closing, slow closing, or metering faucets shall provide a flow of water for at least fifteen (15) seconds.
- (10) Lavatories and hand washing facilities shall be located within twenty-five (25) feet of toilets. Water, soap, and paper towels or a mechanical hand drying device shall be provided at hand washing facilities that are available to all campers. Common towels are prohibited.
- (11) Sanitary facilities must have a roof with an overhang to prevent drainage into the structure.
- (12) Sanitary facilities shall be maintained in a clean condition and in good repair.
- (f) Toilet paper shall be available at all times in toilets and privies.
- (g) Privies shall be constructed and maintained in compliance with Bulletin S.E. 11.
- (h) Where electricity is available, the privy interior must have artificial illumination. Where electricity is not available, the privy must allow natural light to enter for illumination.
- (i) Hand washing facilities, or a dispenser with moistened disposable towelettes, shall be located within twenty-five (25) feet of a privy.
- (j) Toilet facilities shall be located within five hundred (500) feet of each sleeping area. *(Indiana State Department of Health; 410 IAC 6-7.2-27; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3753; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

#### **410 IAC 6-7.2-28 Cooking and eating facilities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 28. (a) Central kitchen and dining halls shall comply with 410 IAC 7-24.

(b) Kitchens separate from the central dining hall and used for individual campers to prepare meals shall meet the following requirements:

- (1) Provide a refrigerator and a range with a ventilation hood.
  - (2) Provide a three (3) compartment sink or a two (2) compartment sink and a dishwasher or use only single service dishes and utensils.
  - (3) Provide a numerically scaled indicating thermometer in each refrigerator accurate to plus or minus three (3) degrees Fahrenheit, located as to be easily readable.
  - (4) Provide shielded or guarded light fixtures providing at least seventy (70) foot-candles of light on all food preparation surfaces and at equipment or utensil washing areas.
  - (5) Provide a hand washing lavatory having hot and cold water and a combination faucet.
  - (6) Provide the hand washing lavatory with a supply of hand cleansing soap and a supply of sanitary towels or a hand drying device. Sinks used for food preparation or food washing equipment shall not be used for hand washing.
  - (7) Common towels are prohibited.
  - (8) Provide a mop sink for use and disposal of mop water. Food preparation sinks shall not be used for this purpose.
- (Indiana State Department of Health; 410 IAC 6-7.2-28; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3754; errata filed Jul 8, 2002, 1:47 p.m.: 25 IR 3769; errata filed Jan 21, 2005, 10:32 a.m.: 28 IR 1695; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.2-29 Buildings and sleeping shelters**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 29. (a) Buildings, structures, tents, and cabins shall be kept in good repair and maintained in a safe and sanitary condition.

(b) Floors and floor coverings in buildings used for sleeping or camp activities shall be in good repair and easily cleanable.

(c) Buildings used for sleeping shall have screened openable windows or mechanical ventilation as required by 675 IAC 14-4.3-1.

(d) Outside openings shall be screened with at least sixteen (16) mesh screen to prevent the entrance of insects.

(e) Screened doors shall be tight-fitting, in good repair, and self-closing.

(f) At least thirty (30) square feet of floor space per camper must be provided in rooms used for sleeping.

(g) Beds shall be arranged so the heads of the sleepers are at least six (6) feet apart and there is at least thirty (30) inches between the sides of the beds. Beds are not required to be permanently affixed to the floor.

(h) Sleeping rooms shall have a minimum ceiling height of seven (7) feet.

(i) Bedding provided by the camp operator shall be clean and washed before use by a new camper.

(j) Foam bed mattresses shall be provided with easily cleanable mattress covers.

(k) Vertical separation between the top of the lower mattress of a double deck bunk and the upper bunk shall be a minimum of twenty-seven (27) inches. The vertical separation from the top of the upper mattress to the ceiling shall be a minimum of thirty-six (36) inches.

(l) Bunk beds used by campers shall be equipped with guardrails on the upper bunk. Guardrails are required on any side of a bunk not placed tightly against a wall.

(m) At least twenty (20) foot-candles of light shall be provided throughout buildings used for sleeping.

(n) Tent material shall be flame-retardant. (*Indiana State Department of Health; 410 IAC 6-7.2-29; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3755; filed Aug 29, 2003, 10:30 a.m.: 27 IR 99; errata filed Mar 21, 2005, 10:40 a.m.: 28 IR 2391; errata filed Aug 22, 2007, 9:18 a.m.: 20070829-IR-410070546ACA; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-30 Water recreation**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 30. (a) An individual currently certified as a lifeguard and having a current cardiopulmonary resuscitation (CPR) certification must direct swimming, boating, canoeing, watercraft, water skiing, and other aquatic activities.

(b) A minimum of one (1) counselor for each fifteen (15) campers shall supervise watercraft and swimming activities.

(c) At each aquatic site, a minimum of one (1) currently certified lifeguard for each thirty (30) campers must be provided.

(d) Swimming pools shall comply with 410 IAC 6-2 and 675 IAC 20.

(e) In addition to the requirements of 410 IAC 6-2 and 675 IAC 20, swimming pools less than two thousand (2,000) square feet shall have one (1) or more qualified lifeguards on duty when the pool is in use by campers.

(f) Watercraft activity participants must wear a Type II or Type III U.S. Coast Guard approved personal flotation device.

(g) Bathing beaches shall comply with the following:

(1) Camp bathing beaches shall have a water surface area of at least one (1) acre.

(2) A minimum of twenty-five (25) square feet of water surface per bather shall be provided in areas having a water depth less than four (4) feet.

(3) At least seventy-five (75) square feet of water surface per bather shall be provided in areas over four (4) feet deep.

(4) A minimum of thirty-five (35) square feet of land area shall be provided per bather.

(5) The camp bathing beach, from the shoreline out to a water depth of six (6) feet, shall consist of pea gravel or other material approved by the department of natural resources to minimize turbidity.

(6) Floating marker lines securely anchored with buoys, spaced at intervals of no more than twenty-five (25) feet, shall be provided to designate the perimeter of the bathing area. Marker lines shall delineate the separation between the shallow (less

than five (5) feet), deep, and diving areas. Depth markers shall be provided at diving areas.

(7) Toilet facilities shall be provided within five hundred (500) feet of camp bathing beaches, in the ratio of one (1) toilet for each fifty (50) bathers. Where flush toilets are provided lavatories shall be provided in the ratio of one (1) lavatory for each fifty (50) bathers.

(8) Water samples shall be collected at the camp bathing beach for bacteriological examination and submitted to an approved laboratory for analysis. Samples shall be submitted in accordance with the following:

(A) One (1) sample at least two (2) weeks prior to opening.

(B) One (1) sample each week the bathing beach is open thereafter.

(C) One (1) sample after a heavy rainfall of at least one-half (½) inch.

(9) Bathing beach samples shall be collected within one (1) foot of the surface, in water having a depth of at least three (3) feet, but no more than six (6) feet and at least twenty (20) feet from swimmers and animals.

(10) The bathing beach must be closed if the beach water quality does not meet the following water quality standards:

(A) *Escherichia coli* form bacteria, using the membrane filter count, exceeds one hundred twenty-five (125) colonies per one hundred (100) milliliters as a geometric mean based on no less than five (5) samples equally spaced over a thirty (30) day period.

(B) *Escherichia coli* form bacteria using the membrane filter count exceeds two hundred thirty-five (235) colonies per one hundred (100) milliliters in any one (1) sample in a thirty (30) day period.

(C) The water has aquatic vegetation, deposits, growths, oil, grease, chemicals, or other substances capable of creating toxic reactions, skin or membrane irritations, or a health or safety hazard.

(11) Results of each camp bathing beach water sample analysis must be reported to the department.

(12) At least one (1) qualified lifeguard shall be on duty when the bathing beach is open to swimmers.

(13) A lifeguard shall be stationed at each diving area.

(14) Each lifeguard station shall have a clear and unobstructed view of the lifeguard's area of responsibility and at least one (1) lifeguard station at the diving area and on shore shall be an elevated stand.

(15) Land based lifeguard stations shall be located within thirty (30) feet of the shoreline.

(16) Lifeguard stations shall be equipped with a whistle or megaphone and sunglasses.

(17) When performing as a lifeguard, lifeguards shall not perform any other tasks and shall not be in the water except in the line of duty.

(18) A spine board equipped with ties or straps and a head immobilization device shall be provided at each aquatic location.

(19) A rescue tube shall be provided at each lifeguard station.

(20) Required safety equipment shall be kept clean, in good repair, and ready for use.

*(Indiana State Department of Health; 410 IAC 6-7.2-30; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3755; filed Aug 29, 2003, 10:30 a.m.: 27 IR 99; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

#### **410 IAC 6-7.2-31 Refuse collection**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 31. (a) Refuse, including garbage, shall be collected, stored, and disposed of properly so the camp is clean and litter free. Refuse shall not accumulate in a manner that could:

(1) result in rodent harborage or promote insect breeding; or

(2) cause a fire, safety, or health hazard.

(b) Each garbage can and dumpster in a camp shall be covered with a tight-fitting lid at all times except during use.

(c) Garbage and refuse shall be collected at least once per week or more often when necessary.

(d) Burning of garbage and refuse is not permitted.

(e) Garbage and refuse shall be stored in watertight, rodent proof, fly proof containers. Unless plastic liners are used, garbage containers shall be cleaned when emptied.

(f) Dumpsters shall be located at least fifty (50) feet from sleeping areas. *(Indiana State Department of Health; 410 IAC 6-7.2-31; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3756; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

**410 IAC 6-7.2-32 Animal and pest control**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 32. (a) Animal shelters, corrals, tie rails, or hitching posts shall not be located within two hundred (200) feet of a dining hall, kitchen, or other place where food is prepared, cooked, or served.

(b) Buildings, grounds, and storage areas shall be kept free of insect and rodent infestations and free of refuse that could harbor rodents, mosquitoes, flies, and other pests.

(c) Lumber, pipe, and other building materials shall be stored at least four (4) inches above the ground. (*Indiana State Department of Health; 410 IAC 6-7.2-32; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3756; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-33 Right of entry**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 33. The department or the local health officer may enter public or private property at reasonable times and, upon presentation of credentials, to do any of the following:

(1) Inspect facilities, equipment, or records.

(2) Investigate allegations, conduct tests, or collect samples.

(3) Obtain information necessary to the issuance of a permit pursuant to this rule.

(4) Determine whether any person is subject to, or in violation of, this rule or a permit issued pursuant to this rule.

(*Indiana State Department of Health; 410 IAC 6-7.2-33; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3757; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-34 Incorporation by reference**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 34. Bulletin S.E. 11 and Bulletin S.E. 13 are incorporated by reference as part of this rule. Copies of these bulletins may be obtained free of charge by mailing a request to the department. (*Indiana State Department of Health; 410 IAC 6-7.2-34; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3757; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-35 Local authorities**

Authority: IC 16-19-3-4

Affected: IC 16-19-3

Sec. 35. Local health officers may enforce the rules of the department. County and municipal authorities within their respective jurisdictions have jurisdiction over zoning, building codes, and ordinances pertaining to camps. (*Indiana State Department of Health; 410 IAC 6-7.2-35; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3757; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA*)

**410 IAC 6-7.2-36 Enforcement**

Authority: IC 16-19-3-4

Affected: IC 4-21.5-3-6; IC 4-21.5-3-8; IC 16-19-3-5

Sec. 36. The department may commence an action under IC 16-19-3-4, IC 16-19-3-5, and IC 4-21.5-3-6, or IC 4-21.5-3-8 against a camp operator who:

(1) fails to comply with this rule; or

(2) interferes with or obstructs the department or its designated agent in the performance of duties pursuant to this rule. *(Indiana State Department of Health; 410 IAC 6-7.2-36; filed Jun 27, 2002, 1:30 p.m.: 25 IR 3757; readopted filed Jul 14, 2008, 2:14 p.m.: 20080806-IR-410080322RFA)*

## **Rule 8. Residential Sewage Disposal Systems (Repealed)**

*(Repealed by Indiana State Department of Health; filed Nov 20, 1990, 12:45 p.m.: 14 IR 651)*

## **Rule 8.1. Residential Sewage Disposal Systems (Repealed)**

*(Repealed by Indiana State Department of Health; filed Aug 19, 2010, 3:32 p.m.: 20100915-IR-410090007FRA, eff Jan 1, 2011)*

## **Rule 8.2. Residential On-Site Sewage Systems (Repealed)**

*(Repealed by Indiana State Department of Health; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

## **Rule 8.3. Residential On-Site Sewage Systems**

### **410 IAC 6-8.3-1 Definitions**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 1. The definitions in this rule apply throughout this rule. *(Indiana State Department of Health; 410 IAC 6-8.3-1; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

### **410 IAC 6-8.3-2 "AASHTO" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 2. "AASHTO" means the American Association of State Highway and Transportation Officials. *(Indiana State Department of Health; 410 IAC 6-8.3-2; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

### **410 IAC 6-8.3-3 "ABS" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 3. "ABS" means acrylonitrile-butadiene-styrene. *(Indiana State Department of Health; 410 IAC 6-8.3-3; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

### **410 IAC 6-8.3-4 "ANSI" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 4. "ANSI" means the American National Standards Institute. *(Indiana State Department of Health; 410 IAC 6-8.3-4; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

### **410 IAC 6-8.3-5 "ASTM" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 5. "ASTM" means the American Society for Testing and Materials. *(Indiana State Department of Health; 410 IAC 6-8.3-5; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-6 "Bedroom" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 6. "Bedroom" means either any room:

(1) in a residence that the local health department and the owner agree could be occupied for the purpose of sleeping and contains:

(A) an area of seventy (70) square feet or more;

(B) at least one (1) operable window or exterior door for emergency egress or rescue; and

(C) for new construction, a closet; or

(2) declared by the owner, by recorded affidavit supplied to the local health department, that will be occupied for sleeping, and that the owner further agrees within the affidavit not to occupy any additional rooms for the purpose of sleeping or otherwise represent to others that any room, beyond the number specified in the affidavit, may be utilized for sleeping without approval of the local health department.

*(Indiana State Department of Health; 410 IAC 6-8.3-6; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-7 "Bedroom equivalent" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 7. "Bedroom equivalent" means any jetted bathtub with a capacity of greater than one hundred twenty-five (125) gallons.

*(Indiana State Department of Health; 410 IAC 6-8.3-7; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-8 "Commissioner" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 8. "Commissioner" means the commissioner of the department or his or her legally authorized representative. *(Indiana*

*State Department of Health; 410 IAC 6-8.3-8; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-9 "Construction permit" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 9. "Construction permit" means written approval by a local health department for the installation, repair, or replacement of a residential on-site sewage system. *(Indiana State Department of Health; 410 IAC 6-8.3-9; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-10 "Densic material" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 10. "Densic material" means relatively unaltered materials (do not meet requirements for any other named diagnostic horizons or any other diagnostic soil characteristic) that have a noncemented rupture resistance class. The bulk density or the organization is such that roots cannot enter, except in cracks. These are mostly earthy materials, such as till, volcanic mudflows, and some mechanically compacted materials. Some noncemented rock can be densic materials if they are dense or resistant enough to keep roots from entering, except in cracks. Densic materials are noncemented and thus differ from paralithic materials and the material below a lithic contact, both of which are cemented. Densic materials have, at their upper boundary, a densic contact if they have no cracks or if the spacing of cracks that roots can enter is ten (10) centimeters (cm) or more. These materials can be used

to differentiate soil series if the materials are within the series control section. (*Indiana State Department of Health; 410 IAC 6-8.3-10; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-11 "Department" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 11. "Department" means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-8.3-11; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-12 "Design daily flow" or "DDF" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 12. "Design daily flow" or "DDF" means the calculated peak daily sewage flow from a residence used to design a residential on-site sewage system. It is one hundred fifty (150) gallons per day times the number of bedrooms and bedroom equivalents. (*Indiana State Department of Health; 410 IAC 6-8.3-12; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-13 "Distribution box" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 13. "Distribution box" means a structure designed to distribute effluent by gravity from a septic tank equally into the trenches of the soil absorption system connected thereto. (*Indiana State Department of Health; 410 IAC 6-8.3-13; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-14 "Drainageway" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 14. "Drainageway" means the channel portion of the landscape in which surface water or rainwater runoff gathers intermittently to flow to a lower elevation. (*Indiana State Department of Health; 410 IAC 6-8.3-14; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-15 "Dwelling" or "residence" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 15. "Dwelling" or "residence" means any house or place used or intended to be used as a place of seasonal or permanent human habitation or for sleeping for one (1) or two (2) families, and any associated outbuildings that are for the private use of the owner. (*Indiana State Department of Health; 410 IAC 6-8.3-15; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-16 "Fill" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 16. "Fill" means soil transported and deposited by man, as well as soil recently transported and deposited by natural erosion forces. Fill is evidenced by one (1) or more of the following:

- (1) No soil horizons or indistinct soil horizons.

- (2) Depositional stratification.
- (3) Presence of a soil horizon that has been covered.
- (4) Materials in a horizon such as cinders or construction debris.
- (5) Position in the landscape.

*(Indiana State Department of Health; 410 IAC 6-8.3-16; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-17 "Foundation drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 17. "Foundation drain" means that portion of a residential drainage system provided to drain only ground water from outside of the foundation of the house or from under the basement floor. *(Indiana State Department of Health; 410 IAC 6-8.3-17; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-18 "Health officer" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 18. "Health officer" means the health officer of a local board of health. *(Indiana State Department of Health; 410 IAC 6-8.3-18; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-19 "INDOT" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 19. "INDOT" means the Indiana department of transportation. *(Indiana State Department of Health; 410 IAC 6-8.3-19; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-20 "Interceptor drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 20. "Interceptor drain" means a subsurface drainage system constructed only on the upslope side or sides of a soil absorption system for the purpose of diverting subsurface water around the soil absorption system site. *(Indiana State Department of Health; 410 IAC 6-8.3-20; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-21 "Local health department" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-20

Sec. 21. "Local health department" means a local health department created pursuant to IC 16-20, or its duly authorized representative. *(Indiana State Department of Health; 410 IAC 6-8.3-21; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-22 "NEMA" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 22. "NEMA" means the National Electrical Manufacturers Association. *(Indiana State Department of Health; 410 IAC*

6-8.3-22; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)

**410 IAC 6-8.3-23 "NRCS" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 23. "NRCS" means the United States Department of Agriculture, Natural Resources Conservation Service. (*Indiana State Department of Health; 410 IAC 6-8.3-23; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-24 "NSF" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 24. "NSF" means the National Sanitation Foundation International. (*Indiana State Department of Health; 410 IAC 6-8.3-24; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-25 "Operating permit" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 25. "Operating permit" means written approval by a local health department for the continued use and maintenance of an on-site sewage system. (*Indiana State Department of Health; 410 IAC 6-8.3-25; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-26 "Owner" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 26. "Owner" means the owner of a dwelling or his or her agent. (*Indiana State Department of Health; 410 IAC 6-8.3-26; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-27 "Perimeter drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 27. "Perimeter drain" means a subsurface drainage system that completely surrounds a soil absorption system for the purpose of lowering a seasonal high water table or preventing movement of subsurface water into a soil absorption system site. (*Indiana State Department of Health; 410 IAC 6-8.3-27; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-28 "Person" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 28. "Person" means any:

- (1) individual;
- (2) partnership;
- (3) copartnership;
- (4) firm;
- (5) company;

- (6) corporation;
- (7) association;
- (8) trust;
- (9) estate; or
- (10) other legal entity, its or their successors, assigns, or agents.

*(Indiana State Department of Health; 410 IAC 6-8.3-28; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-29 "PVC" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 29. "PVC" means polyvinyl chloride. *(Indiana State Department of Health; 410 IAC 6-8.3-29; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-30 "Regulatory flood elevation" or "RFE" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 30. "Regulatory flood elevation" or "RFE" means the elevation of surface water resulting from a flood for which there is a one percent (1%) probability of equaling or exceeding that level in any given year as calculated by a method and procedure that is approved by the Indiana natural resources commission. The regulatory flood elevation is also referred to as the base flood elevation. *(Indiana State Department of Health; 410 IAC 6-8.3-30; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-31 "Residential drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 31. "Residential drain" means the horizontal piping in a house drainage system that receives the discharge from soil, waste, and drainage pipes inside the walls of the house and conveys the same to the residential sewer. *(Indiana State Department of Health; 410 IAC 6-8.3-31; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-32 "Residential on-site sewage system" or "on-site sewage system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 32. "Residential on-site sewage system" or "on-site sewage system" means all equipment and devices necessary for proper conduction, collection, storage, treatment, and on-site disposal of sewage from:

- (1) a one (1) or two (2) family dwelling;
- (2) a residential outbuilding; or
- (3) two (2) single-family dwellings on the same property with a combined DDF of less than or equal to seven hundred fifty (750) gallons per day.

The term includes, but is not limited to, residential sewers, septic tanks, soil absorption systems, temporary sewage holding tanks, and sanitary vault privies. *(Indiana State Department of Health; 410 IAC 6-8.3-32; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-33 "Residential on-site sewage system failure" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 33. "Residential on-site sewage system failure" means a residential on-site sewage system that exhibits one (1) or more of the following:

- (1) The on-site sewage system refuses to accept sewage at the rate of design application thereby interfering with the normal use of residential plumbing fixtures.
- (2) Effluent discharge exceeds the absorptive capacity of the soil, resulting in ponding, seepage, or other discharge of the effluent to the ground surface or to surface waters.
- (3) Effluent is discharged from the on-site sewage system causing contamination of a potable water supply, ground water, or surface waters.

A failed residential on-site sewage system is a health hazard. (*Indiana State Department of Health; 410 IAC 6-8.3-33; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-34 "Residential outbuilding" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 34. "Residential outbuilding" means a building for the private use of the owner not intended to be used for permanent or seasonal human habitation or sleeping. (*Indiana State Department of Health; 410 IAC 6-8.3-34; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-35 "Residential sewer" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 35. "Residential sewer" means the horizontal sewer pipe beginning two (2) feet outside the foundation of the residence or other structure. (*Indiana State Department of Health; 410 IAC 6-8.3-35; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-36 "Sanitary sewerage system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 36. "Sanitary sewerage system" means a sewer or a system of sewers that conveys sewage away from the lot on which it originates to a wastewater treatment facility owned and operated by:

- (1) an incorporated city or town;
- (2) a conservancy district;
- (3) a regional sewer district; or
- (4) a private utility.

(*Indiana State Department of Health; 410 IAC 6-8.3-36; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-37 "SDR" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 37. "SDR" means standard dimension ratio. (*Indiana State Department of Health; 410 IAC 6-8.3-37; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-38 "Seasonal high water table" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 38. "Seasonal high water table" means the upper limit of soil saturated with water for periods long enough for anaerobic conditions to affect soil color. *(Indiana State Department of Health; 410 IAC 6-8.3-38; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-39 "Segment drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 39. "Segment drain" means a subsurface drainage system constructed between two (2) soil absorption fields in the same on-site sewage system for the purpose of intercepting and diverting subsurface water away from the downslope soil absorption field. *(Indiana State Department of Health; 410 IAC 6-8.3-39; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-40 "Septic tank" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 40. "Septic tank" means a watertight structure into which sewage is discharged for settling and solids digestion. *(Indiana State Department of Health; 410 IAC 6-8.3-40; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-41 "Sewage" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 41. "Sewage" means all water-carried waste derived from ordinary living processes. *(Indiana State Department of Health; 410 IAC 6-8.3-41; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-42 "Soil absorption" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 42. "Soil absorption" means a process that utilizes the soil to treat and disperse effluent from a septic tank. *(Indiana State Department of Health; 410 IAC 6-8.3-42; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-43 "Soil absorption system" or "soil absorption field" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 43. "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. *(Indiana State Department of Health; 410 IAC 6-8.3-43; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-44 "Soil horizon" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 44. "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;

- (3) texture;
- (4) consistence;
- (5) kinds and numbers of organisms present; and
- (6) degree of acidity or alkalinity.

*(Indiana State Department of Health; 410 IAC 6-8.3-44; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-45 "Soil loading rate" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 45. "Soil loading rate" means the allowable rate of application of septic tank effluent to the soil. It is expressed in gallons per day per square foot. *(Indiana State Department of Health; 410 IAC 6-8.3-45; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-46 "Soil profile analysis" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 46. "Soil profile analysis" means the observation and evaluation of the physical characteristics of the soil horizons or layers to:

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

*(Indiana State Department of Health; 410 IAC 6-8.3-46; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-47 "Soil scientist" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4; IC 25-31.5

Sec. 47. "Soil scientist" means an individual registered as a professional soil scientist with the Indiana Registry of Soil Scientists (IRSS) as provided for under IC 25-31.5. *(Indiana State Department of Health; 410 IAC 6-8.3-47; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-48 "Start of construction" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 48. "Start of construction" means, but is not limited to, any site activity undertaken for the erection of the structure to be served by a residential on-site sewage system or the delivery of manufactured housing. *(Indiana State Department of Health; 410 IAC 6-8.3-48; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-49 "Subsurface drainage system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 49. "Subsurface drainage system" means any pipe with or without a layer of gravel, stone, or coarse sand, placed below the surface of the ground and designed or constructed in such a manner as to:

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

Interceptor drains, perimeter drains, and segment drains are types of subsurface drainage systems. *(Indiana State Department of*

*Health; 410 IAC 6-8.3-49; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-50 "Technology new to Indiana" or "TNI" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 50. "Technology new to Indiana" or "TNI" means on-site sewage treatment or disposal methods, processes, or equipment not described in this rule that have been approved by the department in accordance with section 52(h) of this rule. *(Indiana State Department of Health; 410 IAC 6-8.3-50; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-51 Administrative authority**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 51. (a) This rule shall be administered by the local boards of health through their health officer and his or her authorized representatives.

(b) Nothing in this rule shall be construed as prohibiting more stringent requirements in local ordinances.

(c) Each local health department residential on-site sewage system permit program is subject to review by the department. Such review may include, but not be limited to, a review of the permits issued, supporting documentation, and a review of on-site sewage system installations.

(d) The department, its agent, or the health officer or his or her agent shall be permitted to enter upon all properties at the proper time for the following purposes necessary to achieve compliance with this rule:

- (1) Inspection.
- (2) Observation.
- (3) Measurement.
- (4) Sampling.
- (5) Testing.

*(Indiana State Department of Health; 410 IAC 6-8.3-51; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-52 General sewage disposal requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 52. (a) No person shall throw, run, drain, seep, or otherwise dispose into any of the surface waters or ground waters of this state, or cause, permit, or suffer to be thrown, run, drained, allowed to seep, or otherwise disposed into such waters, any organic or inorganic matter from a dwelling or residential on-site sewage system that would cause or contribute to a health hazard or water pollution.

(b) The:

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

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

(c) All residential on-site sewage systems utilizing sanitary privies shall conform to department bulletin SE 11, "The Sanitary Vault Privy", 1986 Edition.

(d) Any dwelling that is not connected, or cannot be connected, to a sanitary sewerage system shall be provided with a residential on-site sewage system that includes a septic tank and a soil absorption system that has not failed.

(e) A temporary sewage holding tank is an alternative method of sewage disposal subject to the written approval of the department, except as provided in subsection (f). A temporary sewage holding tank shall not be used as a primary means of residential sewage disposal except:

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

(f) A temporary sewage holding tank may be approved by the local health department:

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

- (2) until soil conditions permit the installation of a soil absorption system for which a construction permit has been issued.

(g) If any conditions preclude the installation of a residential on-site sewage system as described in this rule, the local board of health may not approve the use of any other residential on-site sewage system technology unless written approval from the department is:

- (1) issued, under subsection (h), for local health departments to issue construction permits for the use of the technology; or
- (2) obtained for specific applications.

(h) In order to permit development of new or more efficient sewage treatment or disposal processes, the department may approve the installation of experimental and TNI equipment, facilities, or pollution control devices for which extensive experience or records of use have not been developed in Indiana. The applicant for such approval must submit evidence of sufficient clarity and conclusiveness to convince the department that the proposal has a reasonable and substantial probability of satisfactory operation without failure.

(i) No portion of the residential on-site sewage system or its associated drainage system shall be constructed upon property other than that from which the sewage originates unless easements, which grant permission for such construction and access for system maintenance, have been obtained for that property and have been legally approved and recorded by the proper authority or commission.

(j) Residential on-site sewage systems shall not be used for the disposal of water from:

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

Neither shall they be used for the disposal of chemical wastes in quantities that would pollute ground water or inhibit solids settling or digestion in the septic tank.

(k) Any jetted bathtub with a capacity of greater than one hundred twenty-five (125) gallons shall be treated as an extra bedroom for the on-site sewage system sizing requirements of this rule. (*Indiana State Department of Health; 410 IAC 6-8.3-52; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-53 Construction permits**

Authority: IC 16-19-3-4; IC 16-19-3-5; IC 16-41-25-1

Affected: IC 16-19-3-4

Sec. 53. (a) For any dwelling or place of residence that will not be connected to a sanitary sewerage system, the owner or agent of the owner shall obtain a written construction permit, signed by the health officer, for construction of a residential on-site sewage system prior to the:

- (1) start of construction of a residence;
- (2) placement of a manufactured home, modular home, or mobile home;
- (3) construction or placement of a residential outbuilding that will include plumbing, or the addition of plumbing to an

existing residential outbuilding;

- (4) replacement of any dwelling, place of residence, or residential outbuilding that includes plumbing;
- (5) reconstruction of any dwelling, place of residence, or residential outbuilding that includes plumbing;
- (6) expansion or remodeling of a residence that may increase the number of bedrooms or the DDF;
- (7) addition to, alteration of, replacement of, or repair of an existing residential on-site sewage system; or
- (8) installation of an on-site sewage system for an existing residence that did not previously have a residential on-site sewage system as defined in section 32 of this rule.

(b) A local health department shall not issue a construction permit for a new on-site sewage system or for the repair of an on-site sewage system or replacement of a soil absorption system using TNI without the written approval of the department, except for the provisions of section 52(g) of this rule.

(c) The approval of a site by the local plan commission or the county recorder does not constitute approval by the local health officer.

(d) The application for a construction permit shall be made on a form provided by the local health department. The application shall contain, or include as attachments, the following:

(1) Information on the following:

- (A) The name and address of the property owner.
- (B) The location of the property.
- (C) The number of bedrooms and bedroom equivalents.

(2) The on-site soils evaluation, as outlined in section 56 of this rule, for the site where the residential soil absorption system is to be constructed.

(3) Written plans of sufficient clarity that it can be verified that the design of the residential on-site sewage system shall comply with the provisions of this rule.

(4) Any other information deemed necessary by the health officer.

(e) When site limitations and soil information for the site have been determined, the owner is responsible for the residential on-site sewage system design that:

- (1) addresses the demands of the site in accordance with this rule; and
- (2) will meet local health department approval.

(f) The local health department may require scale drawings of the site and residential on-site sewage system as part of the application process.

(g) In accordance with IC 16-41-25-1(a), the local health department shall issue or deny, in writing to the owner, a residential on-site sewage system construction permit within forty-five (45) days of receipt of an application and plan submittal.

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

(i) A soil absorption system replacement for a residential on-site sewage system shall meet or exceed the minimum provisions of this rule. When replacement is necessary due to on-site sewage system failure, and if the replacement soil absorption system cannot meet all of the provisions of this rule, deviations to this rule for a soil absorption system replacement may be made in accordance with the best judgment of the local department of health, based on the following:

- (1) Limitations of the site.
- (2) Written results of an evaluation of the operational status of all of the on-site sewage system components and probable reasons for system failure.
- (3) Written results of an on-site soils evaluation.

(j) Soil absorption system replacement for a residential on-site sewage system shall not be:

- (1) contrary to sections 52(a) and 60(h) of this rule; and
- (2) constructed to a depth greater than forty-eight (48) inches below final grade in any portion of a subsurface soil absorption system.

(k) If it is determined that the proposed on-site sewage system design does not meet the minimum requirements of this rule, the permit may be denied in accordance with section 55(e) of this rule.

(l) The permittee shall notify the health officer or his or her designee when the work is ready for final inspection:

(1) using the procedure published by the local board of health; or

(2) at least forty-eight (48) hours or two (2) working days before any subsurface portions are to be covered if the local health board has not published inspection procedures.

(m) The construction permit for a residential on-site sewage system in violation of this section may be revoked by the health officer in accordance with section 55(e) of this rule. Requirements of permits issued for the construction of residential on-site sewage systems shall not be considered as fulfilled until the installation is completed to the satisfaction of the health officer or his or her duly authorized representative.

(n) Individual lots in subdivisions designed to utilize residential on-site sewage systems, for which the plats were approved by the local plan commission, county health department, or the county recorder, and recorded prior to December 21, 1990, are exempt from the provisions of sections 70(b)(8) and 72(b)(7) of this rule if the soils on the individual lot have characteristics that would allow the soil to be rated slight or moderate in accordance with guidelines as set forth in the soils manuals and handbooks of the NRCS. The soil absorption system to serve each lot that is exempted by this section shall meet the sizing criteria as follows:

| Permeability Rating     | Square Feet Needed in Trench Bottom per Bedroom |
|-------------------------|-------------------------------------------------|
| 2 in. to 6 in. per hour | 250 square feet per bedroom                     |
| 1 in. to 2 in. per hour | 330 square feet per bedroom                     |

(o) Individual lots in subdivisions designed to utilize residential on-site sewage systems, the plats for which were approved by the local plan commission and recorded prior to December 21, 1990, will be granted an exemption by the department from the provisions of section 70(b)(8) of this rule if the health officer of the county in which the development is located certifies to the department, in writing, that:

(1) the health department has reviewed and recommended approval to the local plan commission, either verbally, in writing, or by other locally acceptable routine procedure, when the subdivision plat was being considered by that agency; and

(2) no lots in the subdivision currently have on-site sewage system failures as defined in section 33 of this rule.

The certification must be accompanied by a brief description of the on-site sewage system approved for each lot for which exemption is requested including information on the design of the on-site sewage system as well as information on the type of soil on the site. An affirmative response to subdivisions (1) and (2) must be included in the certification for the exemption to the provisions of section 70(b)(8) of this rule to be granted. (*Indiana State Department of Health; 410 IAC 6-8.3-53; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-54 Operating permits**

Authority: IC 16-19-3-27

Affected: IC 16-19-3-4

Sec. 54. (a) Local health departments may require written operating permits in accordance with IC 16-19-3-27(b)(2), as follows:

(1) A written operating permit issued by a local health department shall be signed by the health officer.

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

(A) At least once every three (3) years for on-site sewage systems having components, other than a septic tank, requiring scheduled inspection and maintenance.

(B) At least once every five (5) years for all other on-site sewage systems.

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

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

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

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

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

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

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

(e) The operating permit for a residential on-site sewage system in violation of subsection (d) may be revoked by the health officer in accordance with section 55(e) of this rule. (*Indiana State Department of Health; 410 IAC 6-8.3-54; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-55 Violations; permit denial and revocation**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 4-21.5

Sec. 55. (a) Should a residential on-site sewage system fail, the failure shall be corrected by the owner within the time limit set by the health officer.

(b) If any component of a residential on-site sewage system is found to be:

- (1) defective;
- (2) malfunctioning; or
- (3) in need of service;

the health officer may require the repair, replacement, or service of that component. The repair, replacement, or service shall be conducted within the time limit set by the health officer.

(c) Any person found to be violating this rule may be served by the health officer with a written order stating the nature of the violation and providing a time limit for satisfactory correction thereof.

(d) After receiving an order in writing from the local board of health or the health officer, the owner of the property shall comply with the provisions of this rule as set forth in the order and within the time limit specified therein. The order shall be served on the owner or the agent of the owner, but may be served on any person who, by contract with the owner, has assumed the duty of complying with the provisions of an order.

(e) The health officer may deny an application for a construction or operating permit, or may revoke a permit previously issued, for reasons including, but not limited to, any of the following:

- (1) An on-site sewage system design does not meet the minimum requirements of this rule or local sewage ordinances, or both.
- (2) Failure to comply with any provisions of this rule or local sewage ordinances, or both.
- (3) Failure to comply with limitations, terms, or conditions of a permit that has been issued.
- (4) Failure to disclose all the facts relevant to the construction and use of an on-site sewage system.
- (5) Misrepresentation.
- (6) Any change relating to the design, construction, or use of the on-site sewage system not approved, in writing, by the local health department.
- (f) The written denial or revocation shall state the following:
  - (1) The basis for the denial or revocation.
  - (2) The method or methods available for compliance, if applicable.
  - (3) The time frame for compliance, if applicable.
  - (4) That the owner has the right to appeal the denial or revocation.
  - (5) The procedure for registering any such appeal.

(g) The parties involved may agree to use the appeal procedures set forth in IC 4-21.5, the Administrative Orders and Procedures Act. (*Indiana State Department of Health; 410 IAC 6-8.3-55; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA; errata filed Dec 12, 2012, 2:16 p.m.: 20121226-IR-410120156ACA*)

**410 IAC 6-8.3-56 On-site evaluation**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 56. (a) Before issuance of any permit for construction of a residential on-site sewage system or the replacement or alteration of a soil absorption system, an on-site evaluation, which shall include a description of the soil profile, shall be conducted.

(b) Properties of the soil at each site shall be described by a soil scientist using the guidelines set forth in the soil manuals,

technical bulletins, and handbooks of the NRCS.

(c) Soil profile information shall be recorded:

- (1) to a depth of five (5) feet; or
- (2) until a layer is encountered that cannot be readily penetrated;

whichever is shallower.

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

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

(1) For topographic information, the following:

- (A) The slope and slope aspect.
- (B) Surface drainage characteristics and patterns including swales, ditches, and streams.
- (C) The proposed or existing location of house and well or other water supply.
- (D) The location of other major features or structures.
- (E) The location of soil evaluation sites and appropriate soil type boundaries.
- (F) The topographic position of the site.

(2) For soil characteristics, the following:

- (A) Parent material.
- (B) The approximate depths of soil horizons.
- (C) The soil color, structure, and texture at each horizon.
- (D) The horizon designation for each horizon.
- (E) The depth to any layer that has a soil loading rate greater than seventy-five hundredths (0.75) gallons per day per square foot or less than twenty-five hundredths (0.25) gallons per day per square foot.
- (F) The depth to seasonal high ground water as indicated by soil wetness characteristics.
- (G) The depth to bedrock.
- (H) The soil consistence at each horizon.
- (I) The soil effervescence at each horizon.
- (J) The percent coarse fragments at each horizon.
- (K) The percent clay at each horizon, by field estimation, for any horizon where the percent coarse fragments is greater than thirty-five percent (35%) by volume.
- (L) The presence or absence of roots.
- (M) Frost penetration depth, if applicable.

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

- (1) The information required in subsection (e)(2).
- (2) Particle size family.

*(Indiana State Department of Health; 410 IAC 6-8.3-56; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-57 Separation distances**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 57. (a) All septic tanks, dosing tanks, lift stations, and soil absorption systems shall be located in accordance with Table I as follows:

| Table I - Separation Distances            |                                                                  |                        |
|-------------------------------------------|------------------------------------------------------------------|------------------------|
| Minimum Distance in Feet from             | Septic Tank and Other Treatment Units, Dosing Tank, Lift Station | Soil Absorption System |
| Private water supply well <sup>1,2</sup>  | 50                                                               | 50                     |
| Private geothermal well <sup>1,2</sup>    | 50                                                               | 50                     |
| Commercial water supply well <sup>1</sup> | 100                                                              | 100                    |
| Commercial geothermal well <sup>1</sup>   | 100                                                              | 100                    |

## SANITARY ENGINEERING

|                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| Public water supply well, lake, <sup>1,3</sup> or reservoir <sup>1,3</sup>                                                                                                                                                                                                                                                                                                                                                                    | 200             | 200             |
| Other pond, retention pond, lake, or reservoir <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                   | 50              | 50              |
| Storm water detention area <sup>3,4</sup>                                                                                                                                                                                                                                                                                                                                                                                                     | 25              | 25              |
| River, stream, ditch, or drainage tile <sup>5</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>6</sup> | 10 <sup>7</sup> |
| Front, side, or rear lot lines                                                                                                                                                                                                                                                                                                                                                                                                                | 5               | 5               |
| Water lines continually under pressure                                                                                                                                                                                                                                                                                                                                                                                                        | 10              | 10              |
| Suction water lines                                                                                                                                                                                                                                                                                                                                                                                                                           | 50              | 50              |
| <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 IV of section 70(b)(8) 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> 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>5</sup> See section 59(f) of this rule for subsurface drainage system separation.                                                                                                                                                                                                                                                                                                                                                        |                 |                 |
| <sup>6</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>7</sup> A minimum separation of ten (10) feet is required on all sites.                                                                                                                                                                                                                                                                                                                                                                  |                 |                 |

(b) Sewers shall not be located within fifty (50) 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, may be located within the fifty (50) foot distance.
- (2) In no case shall sewers be located closer than twenty (20) feet to dug and bored water supply wells, or closer than ten (10) feet to drilled and driven water supply wells or subsurface pump suction lines.
- (c) Water lines and sewers shall not be laid in the same trench, as follows:
  - (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 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 State Department of Health; 410 IAC 6-8.3-57; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

### 410 IAC 6-8.3-58 Dispersal area

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 58. (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) bedrock;
- (B) densic material;
- (C) dense till;
- (D) soil with fragic properties; or
- (E) layers transitional to dense till (horizons in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution), unless:

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

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

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

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

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

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

(c) For sites that do not meet the conditions of subsection (a), the minimum dispersal area shall be ten (10) feet. For sites that meet the conditions of subsection (a), the dispersal area shall be as indicated in Table II, as follows:

| Table II - Minimum Dispersal Areas <sup>1</sup> for Soil Absorption Systems                                                                                                                                                                     |                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Slope ≤ 1/2 % <sup>2</sup> : On-site sewage system without perimeter drain                                                                                                                                                                      | One-fourth (1/4) width of soil absorption system <sup>5</sup> |
| Slope > 1/2 % <sup>3</sup> : On-site sewage system without perimeter drain                                                                                                                                                                      | One-half (1/2) width of soil absorption system <sup>5</sup>   |
| Any slope: On-site sewage system with perimeter drain <sup>4</sup>                                                                                                                                                                              | Ten (10) feet or the distance to the perimeter drain          |
| <sup>1</sup> No buildings, foundations, slabs, garages, patios, barns, aboveground and belowground swimming pools, retaining walls, roads, driveways, parking areas, or paved sidewalks are allowed in the dispersal area.                      |                                                               |
| <sup>2</sup> Dispersal area is located on each side of the outside edge of the outer trench parallel to the length of the trench, or on each side of the outside edge of the sand area and parallel to the long axis of an elevated sand mound. |                                                               |
| <sup>3</sup> Dispersal area is located on the downslope side of the soil absorption system.                                                                                                                                                     |                                                               |
| <sup>4</sup> For on-site sewage systems with a subsurface perimeter drain without a seasonal high water table, the design and construction of the drain shall meet the requirements of section 59 of this rule.                                 |                                                               |
| <sup>5</sup> Dispersal area width shall not be less than ten (10) feet. A dispersal area width of more than twenty-five (25) feet is not required.                                                                                              |                                                               |

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

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

(1) A dispersal area shall be located on the property, or adjoining property with easement, except that the easement is not required for lots platted prior to January 1, 2011.

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

- (A) buildings;
- (B) foundations;

- (C) slabs;
- (D) garages;
- (E) patios;
- (F) barns;
- (G) aboveground and belowground swimming pools;
- (H) retaining walls;
- (I) roads;
- (J) driveways;
- (K) parking areas;
- (L) paved sidewalks;
- (M) closed loop geothermal systems; or
- (N) other structures.

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

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

*(Indiana State Department of Health; 410 IAC 6-8.3-58; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-59 Drainage**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 59. (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) 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 local health 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 the trench lengths along the contour of the site for a subsurface trench system or parallel to the long axis of an elevated sand mound must be less than or equal to sixty-five (65) feet, 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 not 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 in the line.

(i) A subsurface drain trench installed upslope from a residential 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 68 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 69 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 State Department of Health; 410 IAC 6-8.3-59; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-60 Septic tanks: general requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 60. (a) Septic tanks shall be:

- (1) watertight and constructed of durable material such as concrete, fiberglass, polyethylene, or polypropylene; and
- (2) protected from corrosion.

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

(c) Every septic tank shall have a minimum capacity below the water line as specified in Table III as follows:

| Table III - Required Minimum Capacities for Septic Tanks |                                                            |
|----------------------------------------------------------|------------------------------------------------------------|
| Number of Bedrooms in Dwelling                           | Capacity of Tank in Gallons                                |
| 2 or less                                                | 750                                                        |
| 3                                                        | 1,000                                                      |
| 4                                                        | 1,250                                                      |
| 5                                                        | 1,500                                                      |
| 5 +                                                      | 1,500 plus 300 multiplied by the number of bedrooms over 5 |

(d) All septic tank effluent including effluent from tanks fitted with aeration units for aerobic digestion shall discharge into a soil absorption system or other treatment system as approved in accordance with section 52(h) of this rule.

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

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

(2) The divider wall shall be:

(A) monolithically cast in the tank; or

(B) permanently secured within the tank body using noncorrosive fasteners or fittings.

(3) The transfer port or ports between the compartments shall consist of two (2) or more openings with a combined area of at least fifty (50) square inches. A continuous port across the width of the divider wall is also acceptable.

(4) The transfer port or ports shall be located in the middle twenty-five percent (25%) of the liquid depth.

(5) An access opening meeting the requirements of section 61(o) of this rule must be provided above each compartment, including riser meeting the requirements of section 61(p) of this rule, for maintenance pumping.

(f) When multiple tanks are used in series, no single tank may be less than seven hundred fifty (750) gallons. The larger of the two (2) tanks must be upstream of the other.

(g) When sewage is pumped into a septic tank using a grinder pump:

(1) a two-compartment tank must be used with the sewage pumped into the first compartment; or

(2) two (2) tanks in series must be used, with the sewage pumped into the first tank.

(h) Tanks fitted with aeration units for aerobic digestion shall:

(1) conform to NSF/ANSI Standard 40-2010, Residential Wastewater Treatment Systems, for Class I plants or to standards of an equivalent third party product testing laboratory acceptable to the department that meet or exceed the NSF/ANSI standards;

(2) bear a current registered certification mark;

(3) provide a minimum aerobic treatment capacity of one hundred fifty (150) gallons per bedroom per day;

(4) be preceded by a septic tank that meets all of the requirements of this section and sections 61 and 63 of this rule; and

(5) discharge into a soil absorption system or other treatment system as approved in accordance with section 52(h) of this rule.

(i) Water softener backwash shall be discharged to:

- (1) the building sewer;
- (2) a secondary treatment device;
- (3) the effluent sewer on the downstream side of either the septic tank or the secondary treatment device;
- (4) the dosing tank serving the soil absorption system; or
- (5) a separate soil absorption system constructed specifically for the water softener backwash.

*(Indiana State Department of Health; 410 IAC 6-8.3-60; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-61 Septic tanks: construction details**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 61. (a) The minimum water depth in any compartment shall be thirty (30) inches.

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

(c) The inlet baffle or sanitary tee shall extend at least:

- (1) eight (8) inches below the liquid level; and
- (2) to the top of the inlet sewer.

(d) All new septic tanks must be provided with an outlet filter that meets or exceeds the requirements of section 64 of this rule.

(e) Any septic tank not provided with an outlet filter in the interior of the tank shall be provided with:

- (1) an outlet baffle or sanitary tee that extends below the liquid level at least ten (10) inches, but not more than forty percent (40%) of the tank liquid depth; and
- (2) a gas deflection baffle that is:
  - (A) constructed of durable materials not subject to corrosion or decay; and
  - (B) configured to deflect rising gas bubbles toward the interior of the tank.

(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 outlet baffles or tees.

(g) Scum storage capacity (space between the liquid level and the top of the outlet baffle or tees) shall be not less than twelve and one-half percent (12.5%) of the liquid depth of the septic tank, and not less than nine (9) inches.

(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 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 septic tank. Baffles shall be constructed of durable materials not subject to corrosion or decay.

(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 level.

(j) Reinforced concrete septic tanks shall be constructed of concrete with a compressive strength of four thousand (4,000) pounds per square inch or greater.

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

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

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

(n) Type III fibers are permitted only as a secondary reinforcing material. Fiber additions will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

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

- (1) At least one (1) opening eighteen (18) inches in minimum dimension per compartment for pumping access.
- (2) An access opening shall be located over each of the following:

(A) The inlet.

(B) The outlet.

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

(3) All access openings shall be sized and positioned in such a way as to allow for maintenance, cleaning, and servicing of

septic tanks and outlet filters.

(p) All risers shall meet the following requirements:

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

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

(A) cast into the tank lid; or

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

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

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

(1) Each pipe penetration shall be sealed with a 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) Connectors shall conform to:

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

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

*(Indiana State Department of Health; 410 IAC 6-8.3-61; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-62 Dosing tanks**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 62. (a) Dosing tanks:

(1) must be watertight and constructed of durable material such as concrete, 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 with a 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.

(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, Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes; or

(B) ASTM C 923-08, 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 pump sized in conformance with section 65 and section 76(b), 78(d),

78(q), 82(b), or 82(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 or sensors 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 State Department of Health; 410 IAC 6-8.3-62; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-63 Septic tanks and dosing tanks: installation and maintenance**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-41-25-3

Sec. 63. (a) Septic tanks and dosing tanks shall be installed level on:

- (1) undisturbed soil;
- (2) sand;
- (3) aggregate not larger than one and one-half (1 1/2) inches in diameter; or
- (4) an engineered base.

(b) All drain holes in septic tanks and dosing tanks shall be:

- (1) fitted with a threaded fitting, cast in place, and plugged with a threaded plug; or
- (2) plugged with an expandable pipe plug with a wing nut.

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

(d) When the top of the septic tank or dosing tank is installed below grade, risers shall:

- (1) be installed over access openings used for pumping and for maintenance of the outlet filter in the septic tank;
- (2) be large enough for access to the tank through the access opening in the top of the septic tank or dosing tank to clean the tanks and to maintain floats, sensors, filters, and pumps;
- (3) have the lower section sealed to the top of the tank with butyl sealant meeting ASTM C 990-09 to provide a watertight seal, if the riser assembly is not cast into the tank lid;
- (4) have joints between riser sections sealed in accordance with the manufacturer's instructions so as to be watertight;
- (5) extend to or above final grade;
- (6) be fitted with a watertight cover securely fastened to the riser; and
- (7) comply with the requirements of IC 16-41-25-3.

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

(f) All joints in the sewer connecting septic tanks in series or septic tanks to dosing tanks shall be sealed in accordance with the manufacturer's instructions in order to be watertight and to withstand the pressures exerted on them. (*Indiana State Department of Health; 410 IAC 6-8.3-63; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-64 Outlet filters**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 64. (a) An outlet filter shall be installed in the septic tank of new on-site sewage systems and existing on-site sewage systems requiring a new septic tank.

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

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

- (1) a single septic tank when not used in series;
- (2) the second compartment of two-compartment septic tanks;
- (3) the last septic tank when two (2) or more tanks are used in series; or

(4) a secondary watertight structure located after the last septic tank prior to a dosing tank, distribution box, or secondary treatment unit.

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

(1) located over the outlet filter; and

(2) provided with a riser to grade that meets the minimum requirements of section 63(d) of this rule.

(e) Outlet filters shall:

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

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

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

(4) function without a bypass of unfiltered sewage, sludge, or scum, during normal use and during cleaning or exchange;

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

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

(7) have removable outlet filter cartridges.

(f) The outlet filter housing shall:

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

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

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

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

(5) be solvent welded to a PVC Schedule 40 outlet pipe that meets the minimum requirements of section 67(a)(1) or 67(a)(2) of this rule, creating a watertight and mechanically sound joint.

(g) A filter alarm may be installed in the septic tank to indicate when the outlet filter is in need of service.

(h) An outlet filter with cartridge shall remain in service for the life of the septic tank.

(i) Outlet filter manufacturers shall provide installation and maintenance instructions with each outlet filter. Outlet filters shall be:

(1) installed according to manufacturer's recommendations;

(2) located so they do not interfere with pumping and cleaning of the septic tank; and

(3) placed to allow accessibility for routine maintenance without entering the septic tank or outlet structure if separate from the septic tank.

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

(1) The outlet filter shall be:

(A) cleaned and washed so that the filter waste enters the septic tank; or

(B) exchanged with a clean filter.

(2) All contaminated effluent filters shall be treated as untreated sewage and handled properly during the cleaning or exchange process.

*(Indiana State Department of Health; 410 IAC 6-8.3-64; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-65 Effluent pumps**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 65. (a) All effluent pumps shall be:

(1) submersible pumps suitable for use in a corrosive atmosphere;

(2) sized to deliver the total design flow rate while meeting the total dynamic head requirements of the on-site sewage system;

(3) connected to pump discharge piping that is adequately secured; and

(4) installed in such a manner as to allow for removal without entering the dosing tank or dewatering the dosing tank.

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

(1) Fittings and valves shall be of compatible corrosion resistant material.

(2) A quick disconnect coupling, breakaway flange, or similar disconnect device shall be provided for each pump discharge pipe.

(3) Quick disconnect couplings and valves shall be readily accessible from the ground surface without entering the dosing tank.

(4) Submersible pumps shall be provided with a corrosion resistant lifting apparatus such as a rope or chain to facilitate removal of the pump.

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

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

(e) Junction boxes shall be rated as a NEMA 4X, National Electrical Manufacturers Association, NEMA 250-2008. All connectors to the junction box shall form a watertight seal:

(1) to the junction box; and

(2) between connector openings and incoming wires.

(f) Any connector not used for wiring shall be fitted with a watertight plug. (*Indiana State Department of Health; 410 IAC 6-8.3-65; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-66 Distribution box specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 66. (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:

(1) be resistant to corrosion and decay; and

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

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

(c) The distribution box shall be fitted with a watertight, 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.

(d) 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.

(e) The influent port shall be located or baffled to prevent unequal distribution of effluent to the distribution system. If baffles are provided, the baffles and their mounts or retainers shall:

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

(2) extend to one (1) inch above the top of the inlet.

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

(1) If an elbow is used, the elbow must:

(A) be a ninety (90) degree elbow;

(B) 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

(C) include a weep hole in the upper part of the elbow.

(2) 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.

(g) 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 State Department of Health; 410 IAC 6-8.3-66; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-67 Pipe specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 67. (a) Piping used in a residential 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:

(A) For PVC pipe, the following:

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

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

(iii) ASTM D 3034-08 for the following:

(AA) SDR 26 and SDR 35 for four (4) inch through fifteen (15) inch pipe.

(BB) SDR 26 with gasketed compression-type joints for special crossings above or below potable water lines where the vertical clearance of eighteen (18) inches required in section 57(c)(2) of this rule cannot be met.

(B) For ABS pipe, the following:

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

(ii) ASTM D 2680-01 (Reapproved 2009) for eight (8) inch through fifteen (15) inch pipe.

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

(C) ASTM F 480-12, Schedule 40 and 80.

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

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

(A) For PVC pipe, the following:

(i) ASTM D 2241-09 SDR 13.5, SDR 17, SDR 21, or SDR 26.

(ii) ASTM D 1785-06 Schedule 40, 80, or 120.

(B) For ABS pipe, the following:

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

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

(b) Gasketed compression-type joints must be used on pressure sewers when they are located ten (10) feet or less from a water line.

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

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

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

(3) Four (4) inch diameter smooth interior wall polyethylene pipe meeting ASTM F 810-07 or AASHTO M252-09 Type SP.

(d) Gravity distribution laterals shall have two (2) or three (3) rows of holes separated by one hundred twenty (120) degrees with five-eighths (5/8) inch or three-quarters (3/4) inch hole diameter with holes spaced at five (5) inches or less.

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

(1) ASTM F 405-05.

(2) ASTM F 667-12.

(3) NRCS 606, September 2003.

*(Indiana State Department of Health; 410 IAC 6-8.3-67; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-68 Aggregate specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 68. (a) Aggregate to be used in soil absorption systems shall be gravel, stone, or other materials listed by the department. Crushed limestone aggregate, if used, shall be rated as forty percent (40%) or less on the Los Angeles abrasion quality requirement of the INDOT 2012 Standard Specifications, Section 904, Aggregates.

(b) Aggregate:

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

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

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

(d) Fines, sand, and clay shall be removed from the aggregate prior to its placement in the trench. (*Indiana State Department of Health; 410 IAC 6-8.3-68; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-69 Barrier materials**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 69. (a) The physical characteristics of barrier materials shall have the following minimum average roll values (MARV):

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

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

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

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

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

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

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

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

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

(1) nonbiodegradable;

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

(3) resistant to common solvents.

(*Indiana State Department of Health; 410 IAC 6-8.3-69; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-70 Subsurface trench on-site sewage system site suitability**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 70. (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.

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

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

constructed:

- (1) Sufficient area exists on the lot for an appropriately sized subsurface trench on-site sewage system, while meeting the:
  - (A) separation distances of section 57 of this rule; and
  - (B) dispersal area requirements of section 58 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 59 of this rule.
- (6) When there are no 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) 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 IV, as follows:

| Table IV - Soil Loading Rates for Subsurface Trench On-Site Sewage Systems (in gpd/ft <sup>2</sup> ) |                 |          |                                                            |                                                                  |                                                                                 |                                                            |                                          |                                                                             |
|------------------------------------------------------------------------------------------------------|-----------------|----------|------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------|-----------------------------------------------------------------------------|
| SOIL STRUCTURE CLASSES                                                                               |                 |          |                                                            |                                                                  |                                                                                 |                                                            |                                          |                                                                             |
| SOIL<br>TEXTURE<br>CLASSES                                                                           | Single<br>Grain | Granular | Strong:<br>Angular,<br>Sub-Angular<br>Blocky,<br>Prismatic | Moderate:<br>Angular,<br>Sub-<br>Angular<br>Blocky,<br>Prismatic | Weak:<br>Angular,<br>Sub-Angular<br>Blocky,<br>Prismatic;<br>Platy <sup>1</sup> | Fragic<br>Characteristi<br>cs: Very<br>Coarse<br>Prismatic | Structureless,<br>Massive, V.<br>Friable | Structureless,<br>Massive,<br>Compact, Firm,<br>V. Firm; Platy <sup>2</sup> |
| Gravel,<br>Coarse Sand                                                                               | >1.20           | N/A      | N/A                                                        | N/A                                                              | N/A                                                                             | N/A                                                        | N/A                                      | N/A                                                                         |
| Loamy<br>Coarse<br>Sand,<br>Medium<br>Sand                                                           | 1.20            | 1.20     | N/A                                                        | N/A                                                              | 1.20                                                                            | N/A                                                        | N/A                                      | N/A                                                                         |
| Fine Sand,<br>Loamy<br>Sand,<br>Loamy Fine<br>Sand                                                   | 0.75            | 0.60     | N/A                                                        | 0.75                                                             | 0.75                                                                            | N/A                                                        | 0.75                                     | N/A                                                                         |
| Very Fine<br>Sand,<br>Loamy V.                                                                       | 0.50            | 0.50     | N/A                                                        | 0.75                                                             | 0.60                                                                            | N/A                                                        | 0.60                                     | N/A                                                                         |

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|                                                                                                                                                                          |     |      |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|------|------|------|
| Fine Sand                                                                                                                                                                |     |      |      |      |      |      |      |      |
| Sandy Loam, Coarse Sandy Loam                                                                                                                                            | N/A | 0.75 | N/A  | 0.60 | 0.60 | 0.00 | 0.60 | 0.00 |
| Fine Sandy Loam, V. Fine Sandy Loam                                                                                                                                      | N/A | 0.75 | N/A  | 0.60 | 0.60 | 0.00 | 0.60 | 0.00 |
| Loam                                                                                                                                                                     | N/A | 0.75 | 0.75 | 0.50 | 0.50 | 0.00 | 0.50 | 0.00 |
| Silt Loam, Silt                                                                                                                                                          | N/A | 0.75 | 0.75 | 0.50 | 0.30 | 0.00 | 0.30 | 0.00 |
| Sandy Clay Loam                                                                                                                                                          | N/A | 0.60 | 0.60 | 0.50 | 0.30 | 0.00 | 0.30 | 0.00 |
| Silty Clay Loam, Clay Loam, Sandy Clay                                                                                                                                   | N/A | 0.60 | 0.60 | 0.30 | 0.25 | 0.00 | 0.25 | 0.00 |
| Silty Clay, Clay                                                                                                                                                         | N/A | 0.60 | 0.50 | 0.30 | 0.25 | N/A  | 0.25 | 0.00 |
| Organic Soil Materials                                                                                                                                                   | N/A | N/A  | N/A  | N/A  | N/A  | N/A  | 0.00 | N/A  |
| Limnic Soil Materials                                                                                                                                                    | N/A | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | 0.00 |
| Bedrock                                                                                                                                                                  | N/A | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  |
| N/A NOT APPLICABLE                                                                                                                                                       |     |      |      |      |      |      |      |      |
| <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 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 State Department of Health; 410 IAC 6-8.3-70; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)

**410 IAC 6-8.3-71 Subsurface trench on-site sewage system type selection criteria**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 71. (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 IV in section 70(b)(8) of this rule;
  - (3) trench bottoms will be at least thirty (30) inches above any horizon with:
    - (A) a soil loading rate less than twenty-five hundredths (0.25) gallons per day per square foot or greater than seventy-five hundredths (0.75) gallons per day per square foot;
    - (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:
      - (i) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and
      - (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;
    - (C) less than twenty percent (20%) clay by volume and greater than thirty-five percent (35%) coarse fragments by volume; or
    - (D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume; and
  - (4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed with a total absorption trench length that does not exceed five hundred (500) lineal feet.
- (c) A subsurface trench gravity on-site sewage system may also be constructed if the:
  - (1) DDF of the proposed on-site sewage system is less than four hundred fifty (450) gallons per day;
  - (2) site has a soil loading rate of equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot and equal to or less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table IV in section 70(b)(8) of this rule;
  - (3) trench bottoms will be at least twenty-four (24) inches above any horizon with:
    - (A) a soil loading rate less than twenty-five hundredths (0.25) gallons per day per square foot or greater than seventy-five hundredths (0.75) gallons per day per square foot;
    - (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:
      - (i) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and
      - (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;
    - (C) less than twenty percent (20%) clay by volume and greater than thirty-five percent (35%) coarse fragments by volume; or
    - (D) greater than or equal to twenty percent (20%) clay by volume and greater than sixty percent (60%) coarse fragments by volume; and
  - (4) soil absorption system, including either half of a subsurface trench alternating field on-site sewage system, is designed with a total absorption system trench length that does not exceed five hundred (500) lineal feet.
- (d) A subsurface trench on-site sewage system that utilizes alternating fields or is dosed using pump assisted distribution may be constructed if the:
  - (1) soil loading rate of the site is equal to or greater than twenty-five hundredths (0.25) gallons per day per square foot and equal to or less than seventy-five hundredths (0.75) gallons per day per square foot, as determined from Table IV in section 70(b)(8) of this rule; and
  - (2) trench bottoms will be at least twenty-four (24) inches above any horizon with:
    - (A) a soil loading rate less than twenty-five hundredths (0.25) gallons per day per square foot;
    - (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:

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

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

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

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

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

(f) If any soil horizon within twenty-four (24) inches of the proposed trench bottom has a soil loading rate of one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table IV in section 70(b)(8) of this rule, the on-site sewage system shall utilize pressure distribution. (*Indiana State Department of Health; 410 IAC 6-8.3-71; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-72 Elevated sand mound on-site sewage system site suitability**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 72. (a) On-site sewage system feasibility, location, selection, and design shall be based on the:

(1) site evaluation;

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

(3) DDF.

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

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

(A) separation distances of section 57 of this rule; and

(B) dispersal area requirements of section 58 of this rule.

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

(3) The site on which the elevated sand mound on-site sewage system is to be built has a slope of six percent (6%) or less.

(4) Site conditions permit any seasonal high water table at the site of the proposed elevated sand mound on-site sewage system to be lowered to at least twenty (20) inches below original grade, in accordance with section 59 of this rule.

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

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

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

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

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

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

(7) All soil horizons from the original grade to twenty (20) inches below the original grade have a soil loading rate of not less than twenty-five hundredths (0.25) gallons per day per square foot and not more than one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table V as follows:

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| Table V - Soil Loading Rates for Elevated Sand Mound On-Site Sewage Systems (in gpd/ft <sup>2</sup> ) |                 |          |                                                                |                                                              |                                                                                 |                                                            |                                                      |                                                                             |
|-------------------------------------------------------------------------------------------------------|-----------------|----------|----------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------|
| SOIL STRUCTURE CLASSES                                                                                |                 |          |                                                                |                                                              |                                                                                 |                                                            |                                                      |                                                                             |
| SOIL<br>TEXTURE<br>CLASSES                                                                            | Single<br>Grain | Granular | Strong:<br>Angular,<br>Sub-<br>Angular<br>Blocky,<br>Prismatic | Moderate:<br>Angular,<br>Sub-Angular<br>Blocky,<br>Prismatic | Weak:<br>Angular,<br>Sub-Angular<br>Blocky,<br>Prismatic;<br>Platy <sup>1</sup> | Fragic<br>Characteristi<br>cs: Very<br>Coarse<br>Prismatic | Structureless,<br>Massive,<br>Friable, V.<br>Friable | Structureless,<br>Massive,<br>Compact, Firm,<br>V. Firm; Platy <sup>2</sup> |
| Gravel,<br>Coarse<br>Sand                                                                             | >1.20           | N/A      | N/A                                                            | N/A                                                          | N/A                                                                             | N/A                                                        | N/A                                                  | N/A                                                                         |
| Loamy<br>Coarse<br>Sand,<br>Medium<br>Sand                                                            | 1.20            | 1.20     | N/A                                                            | N/A                                                          | 1.20                                                                            | N/A                                                        | N/A                                                  | N/A                                                                         |
| Fine Sand,<br>Loamy<br>Sand,<br>Loamy Fine<br>Sand                                                    | 0.60            | 0.60     | N/A                                                            | 0.60                                                         | 0.60                                                                            | N/A                                                        | 0.60                                                 | N/A                                                                         |
| Very Fine<br>Sand,<br>Loamy V.<br>Fine Sand                                                           | 0.50            | 0.50     | N/A                                                            | 0.50                                                         | 0.50                                                                            | N/A                                                        | 0.50                                                 | N/A                                                                         |
| Sandy<br>Loam,<br>Coarse<br>Sandy<br>Loam                                                             | N/A             | 0.60     | N/A                                                            | 0.60                                                         | 0.60                                                                            | 0.00                                                       | 0.60                                                 | 0.00                                                                        |
| Fine Sandy<br>Loam, V.<br>Fine Sandy<br>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,<br>Silt                                                                                    | N/A             | 0.50     | 0.50                                                           | 0.50                                                         | 0.50                                                                            | 0.00                                                       | 0.50                                                 | 0.00                                                                        |
| Sandy Clay<br>Loam                                                                                    | N/A             | 0.50     | 0.50                                                           | 0.50                                                         | 0.50                                                                            | 0.00                                                       | 0.50                                                 | 0.00                                                                        |
| Silty Clay<br>Loam, Clay<br>Loam,<br>Sandy Clay                                                       | N/A             | 0.25     | 0.25                                                           | 0.25                                                         | 0.25                                                                            | 0.00                                                       | 0.25                                                 | 0.00                                                                        |
| Silty Clay,<br>Clay                                                                                   | N/A             | 0.25     | 0.25                                                           | 0.25                                                         | 0.25                                                                            | N/A                                                        | 0.25                                                 | 0.00                                                                        |
| Organic<br>Soil<br>Materials                                                                          | N/A             | N/A      | N/A                                                            | N/A                                                          | N/A                                                                             | N/A                                                        | 0.00                                                 | N/A                                                                         |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|------|
| 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. |     |     |     |     |     |     |     |      |

(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 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 State Department of Health; 410 IAC 6-8.3-72; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)

**410 IAC 6-8.3-73 Table for on-site sewage system selection**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 73. On-site sewage system selection may be summarized in Table VI as follows:

| Table VI - Table for On-Site Sewage System Selection Based on Requirements of 410 IAC 6-8.3                          |                                          |        |                                                        |                                         |                                      |                                                      |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------------|--------|--------------------------------------------------------|-----------------------------------------|--------------------------------------|------------------------------------------------------|
| Site Requirements                                                                                                    | Subsurface Trench On-Site Sewage Systems |        |                                                        |                                         |                                      | Elevated Sand Mound On-Site Sewage Systems (Sec. 72) |
|                                                                                                                      | Gravity Flow <sup>1</sup> (Sec. 70, 71)  |        | Flood Dosing or Alt. Fields <sup>1</sup> (Sec. 70, 71) | Flood Dosing <sup>1</sup> (Sec. 70, 71) | Pressure Dist. (Sec. 70, 71)         |                                                      |
| 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> | ≥ 24                                     | ≥ 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> | ≥ 24                                     | ≥ 24   | ≥ 24                                                   | ≥ 24                                    | Press. Dist. required for SLR = 1.20 | ≥ 0                                                  |
| Distance from Trench Bottom                                                                                          | ≥ 30                                     | ≥ 24   | ≥ 24                                                   | ≥ 24                                    | ≥ 24                                 | ≥ 20                                                 |

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|------------------------------------------------------------------------------------------------------------------------------|-------|-------|-----------------------|------|------|------|
| (Ground Surface for Mounds) to a Soil Horizon Developed from Wisconsin Glacial Till That Shows Effervescence <sup>3</sup>    |       |       |                       |      |      |      |
| 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 59 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 59 of this rule.

<sup>3</sup>See Sections 58(a)(2)(E), 70(b)(6), 71(b)(3)(B), 71(c)(3)(B), 71(d)(2)(B) and 72(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).

(Indiana State Department of Health; 410 IAC 6-8.3-73; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA; errata filed Dec 12, 2012, 2:16 p.m.: 20121226-IR-410120156ACA)

#### 410 IAC 6-8.3-74 Subsurface trench on-site sewage systems: general design and construction requirements

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 74. (a) The minimum absorption area (in square feet) required for each subsurface trench soil absorption system shall be based on the following:

- (1) The number of bedrooms and bedroom equivalents in the dwelling.
- (2) The appropriate soil loading rate (in gallons per day per square foot) determined from Table IV in section 70(b)(8) 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:

$$\text{Area} = \frac{150 \text{ g} \times \text{number of bedrooms and bedroom equivalents}}{\text{Soil loading rate in gpd/sq. ft.}}$$

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

(c) All subsurface trench on-site sewage systems shall be located in accordance with the separation distances shown in Table I in section 57(a) of this rule.

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

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

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

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

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

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

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

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

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

(i) The residential sewer shall be a minimum of four (4) inches in diameter. Four (4) inch sewers shall be installed with a positive slope of:

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

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

(j) A six (6) inch residential sewer, if utilized, shall be installed with a positive slope of:

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

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

(k) A vertical drop may be installed in a residential sewer. Each vertical drop shall have a cleanout located immediately upslope.

(l) Effluent sewers shall meet the following requirements:

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

(2) Effluent sewer pipe 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%).

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

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

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

(p) All subsurface trench soil absorption systems shall be designed to utilize trenches with a minimum width of eighteen (18)

inches and a maximum trench width of thirty-six (36) inches.

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

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

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

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

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

(v) Perforated pipe distribution laterals in the absorption trench of a subsurface trench soil absorption system shall be completely surrounded by aggregate that meets the specifications in section 68 of this rule. There shall be at least six (6) inches of aggregate below the pipe.

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

- (1) two (2) inches throughout the entire length and width of trenches having a depth of twelve (12) inches or greater; or
- (2) two (2) inches above the distribution lateral for the entire length of trenches having a depth of ten (10) inches to twelve (12) inches.

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

- (1) meet the minimum requirements in section 69 of this rule;
- (2) be placed on the aggregate to prevent soil particle movement into the aggregate; and
- (3) cover the aggregate from side to side and from end to end.

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

(z) Tire chips, if used for aggregate, will have protruding wires and shall be removed from the ground surface during site cleanup. (*Indiana State Department of Health; 410 IAC 6-8.3-74; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-75 Subsurface trench gravity on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 75. (a) Subsurface trench gravity on-site sewage systems shall meet all of the requirements of:

- (1) section 74 of this rule; and
- (2) this section.

(b) A distribution box or series of distribution boxes shall be installed between the septic tank and the subsurface soil absorption system, and each absorption system trench shall be connected directly to a distribution box using an effluent sewer.

(c) Distribution boxes shall be installed level on either undisturbed soil, sand, sand mix, aggregate not larger than one-half (1/2) inch in diameter, or engineered base, and the outlets shall be checked to assure that they are at a uniform elevation.

(d) Effluent sewer pipe in a subsurface trench gravity on-site sewage system shall meet the following requirements:

- (1) For installation prior to a distribution box, effluent sewer pipe shall be bedded according to manufacturer requirements and backfilled with debris-free soil material or aggregate without damaging the pipe.
- (2) For installation after a distribution box, effluent sewer pipe shall be stabilized, bedded, and backfilled without damaging the pipe with debris-free soil material to prevent the movement of effluent along the outside of the pipe.

(e) The invert elevation of the end of each effluent sewer pipe connected to a distribution box shall be at the same elevation so that each gravity distribution lateral receives an equal volume of effluent.

(f) Each effluent sewer from an outlet of a distribution box that directly serves a trench shall extend into the aggregate in the trench.

(g) All soil absorption system gravity distribution laterals shall have an internal diameter of four (4) inches.

(h) Gravity distribution laterals in the aggregate trenches shall be installed level along their length:

(1) for two (2) hole gravity distribution laterals, the laterals shall be placed in the aggregate with the rows of holes located at one hundred twenty (120) and two hundred forty (240) degrees from vertical (rows of holes at four (4) o'clock and eight (8) o'clock); and

(2) for three (3) hole gravity distribution laterals, the laterals shall be placed in the aggregate with the rows of holes located at one hundred twenty (120), two hundred forty (240), and three hundred sixty (360) degrees from vertical (rows of holes at four (4) o'clock, eight (8) o'clock, and twelve (12) o'clock).

(i) In order to provide equal flow distribution in gravity feed subsurface soil absorption systems, each absorption field trench must be individually connected to a distribution box. The distribution box shall be at least five (5) feet from the proximal end of each soil absorption field trench and shall be connected to the absorption field trench by unperforated pipe that is laid with a gravel free backfill to the point where the unperforated pipe enters the aggregate in the trench. All absorption trenches served by a common distribution box must be constructed so that each trench served by the distribution box is loaded with an equal volume of effluent. (*Indiana State Department of Health; 410 IAC 6-8.3-75; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-76 Subsurface trench flood dosed on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 76. (a) Subsurface trench flood dosed on-site sewage systems shall meet all of the requirements of:

(1) sections 74 and 75 of this rule; and

(2) this section.

(b) When a subsurface trench flood dosed soil absorption system is used, the dosing effluent pump shall be sized, and its controls set to deliver the DDF to the soil absorption field in each dose. Effluent pump selection shall be based on manufacturer's pump curves for the required discharge rate from Table VII, as follows, at the total head imposed on the pump:

| Table VII - Required Effluent Pump Discharge Rates for Subsurface Trench Flood Dosed On-Site Sewage Systems |                                      |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Number of Bedrooms                                                                                          | Discharge Rate in Gallons per Minute |
| 1                                                                                                           | 30                                   |
| 2                                                                                                           | 30                                   |
| 3                                                                                                           | 30-45                                |
| 4                                                                                                           | 30-60                                |
| 5                                                                                                           | 38-75                                |
| 6                                                                                                           | 45-90                                |

(c) The total head for a subsurface trench flood dosed soil absorption system shall be the elevation difference between the effluent pump off and the highest point in the force main or the outlet of the effluent force main in the distribution box, whichever is the highest elevation, in addition to the friction loss in the effluent force main expressed in feet.

(d) The effluent force main shall drain unless it is installed below the frost line, as listed in Table VIII, as follows, and designed so that no effluent remains in any portion of the effluent force main located above the frost line:

| Table VIII – Frost Penetrations in Indiana (in inches) |    |           |    |             |    |
|--------------------------------------------------------|----|-----------|----|-------------|----|
| Adams                                                  | 60 | Franklin  | 48 | Lawrence    | 48 |
| Allen                                                  | 60 | Fulton    | 60 | Madison     | 60 |
| Bartholomew                                            | 48 | Gibson    | 42 | Marion      | 54 |
| Benton                                                 | 60 | Grant     | 54 | Marshall    | 60 |
| Blackford                                              | 60 | Greene    | 54 | Martin      | 48 |
| Boone                                                  | 54 | Hamilton  | 54 | Miami       | 60 |
| Brown                                                  | 48 | Hancock   | 54 | Monroe      | 48 |
| Carroll                                                | 60 | Harrison  | 36 | Montgomery  | 60 |
| Cass                                                   | 60 | Hendricks | 54 | Morgan      | 48 |
| Clark                                                  | 36 | Henry     | 54 | Newton      | 60 |
|                                                        |    |           |    | Rush        | 54 |
|                                                        |    |           |    | St. Joseph  | 60 |
|                                                        |    |           |    | Scott       | 36 |
|                                                        |    |           |    | Shelby      | 54 |
|                                                        |    |           |    | Spencer     | 36 |
|                                                        |    |           |    | Starke      | 60 |
|                                                        |    |           |    | Steuben     | 60 |
|                                                        |    |           |    | Sullivan    | 54 |
|                                                        |    |           |    | Switzerland | 42 |
|                                                        |    |           |    | Tippecanoe  | 60 |

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|----------|----|------------|----|----------|----|-------------|----|
| Clay     | 54 | Howard     | 60 | Noble    | 60 | Tipton      | 60 |
| Clinton  | 54 | Huntington | 60 | Ohio     | 42 | Union       | 48 |
| Crawford | 36 | Jackson    | 48 | Orange   | 42 | Vanderburgh | 36 |
| Daviess  | 48 | Jasper     | 60 | Owen     | 54 | Vermillion  | 60 |
| Dearborn | 48 | Jay        | 60 | Parke    | 60 | Vigo        | 60 |
| Decatur  | 48 | Jefferson  | 42 | Perry    | 36 | Wabash      | 60 |
| Dekalb   | 60 | Jennings   | 48 | Pike     | 42 | Warren      | 60 |
| Delaware | 60 | Johnson    | 54 | Porter   | 60 | Warrick     | 36 |
| Dubois   | 42 | Knox       | 48 | Posey    | 42 | Washington  | 36 |
| Elkhart  | 60 | Kosciusko  | 60 | Pulaski  | 60 | Wayne       | 54 |
| Fayette  | 54 | LaGrange   | 60 | Putnam   | 54 | Wells       | 60 |
| Floyd    | 36 | Lake       | 60 | Randolph | 54 | White       | 60 |
| Fountain | 60 | LaPorte    | 60 | Ripley   | 48 | Whitley     | 60 |

(e) In addition to the liquid holding capacity of a dosing tank stated in section 62(f) of this rule the following shall apply:

(1) If the effluent force main drains to the soil absorption system, or if it does not drain between doses, the dosing tank volume shall be the DDF.

(2) If the effluent force main drains back to the dosing tank, the dosing tank volume shall be the DDF plus the volume contained in the effluent force main.

(f) The distal end of the effluent force main in the distribution box must be fitted with an elbow turned down, or else the distribution box must be baffled.

(g) The minimum inside diameter of the effluent force main shall be one (1) inch. The maximum inside diameter of the effluent force main shall be four (4) inches.

(h) Tables IX and X, as follows, shall be used in determining friction losses in the effluent force mains and manifold when plastic pipe is used:

| Table IX - Friction Losses in Plastic Pipe (per 100 feet of pipe)                                            |      |                |        |                |        |                |      |                |        |                |      |                |      |                |
|--------------------------------------------------------------------------------------------------------------|------|----------------|--------|----------------|--------|----------------|------|----------------|--------|----------------|------|----------------|------|----------------|
| Pipe Diameter, Flow (gpm), Velocity (v) <sup>2</sup> , and Friction Loss Head (H <sub>f</sub> ) <sup>1</sup> |      |                |        |                |        |                |      |                |        |                |      |                |      |                |
| Flow (gpm)                                                                                                   | 1"   |                | 1 1/4" |                | 1 1/2" |                | 2"   |                | 2 1/2" |                | 3"   |                | 4"   |                |
| Q                                                                                                            | v    | H <sub>f</sub> | v      | H <sub>f</sub> | v      | H <sub>f</sub> | v    | H <sub>f</sub> | v      | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> |
| 1                                                                                                            | 0.37 | 0.11           |        |                |        |                |      |                |        |                |      |                |      |                |
| 2                                                                                                            | 0.74 | 0.38           | 0.43   | 0.10           |        |                |      |                |        |                |      |                |      |                |
| 3                                                                                                            | 1.11 | 0.78           | 0.64   | 0.21           | 0.47   | 0.10           |      |                |        |                |      |                |      |                |
| 4                                                                                                            | 1.49 | 1.31           | 0.86   | 0.35           | 0.63   | 0.16           |      |                |        |                |      |                |      |                |
| 5                                                                                                            | 1.86 | 1.92           | 1.07   | 0.52           | 0.79   | 0.24           |      |                |        |                |      |                |      |                |
| 6                                                                                                            | 2.23 | 2.70           | 1.29   | 0.71           | 0.95   | 0.33           | 0.57 | 0.10           |        |                |      |                |      |                |
| 8                                                                                                            | 2.97 | 4.59           | 1.72   | 1.19           | 1.26   | 0.56           | 0.77 | 0.17           |        |                |      |                |      |                |
| 10                                                                                                           | 3.71 | 6.90           | 2.15   | 1.78           | 1.58   | 0.83           | 0.96 | 0.25           | 0.67   | 0.11           |      |                |      |                |
| 15                                                                                                           | 5.57 | 14.7           | 3.22   | 3.76           | 2.37   | 1.74           | 1.43 | 0.52           | 1.01   | 0.22           |      |                |      |                |
| 20                                                                                                           | 7.43 | 25.2           | 4.29   | 6.42           | 3.16   | 2.96           | 1.91 | .87            | 1.34   | 0.37           | 0.87 | 0.13           |      |                |
| 25                                                                                                           | 9.28 | 38.6           | 5.37   | 9.74           | 3.94   | 4.46           | 2.39 | 1.29           | 1.68   | 0.54           | 1.09 | 0.19           |      |                |
| 30                                                                                                           |      |                | 6.44   | 13.6           | 4.73   | 6.27           | 2.87 | 1.81           | 2.01   | 0.76           | 1.30 | 0.26           |      |                |
| 35                                                                                                           |      |                | 7.51   | 18.2           | 5.52   | 8.40           | 3.35 | 2.42           | 2.35   | 1.01           | 1.52 | 0.35           | 0.88 | 0.10           |
| 40                                                                                                           |      |                | 8.59   | 23.6           | 6.30   | 10.7           | 3.83 | 3.12           | 2.68   | 1.28           | 1.74 | 0.44           | 1.01 | 0.12           |
| 45                                                                                                           |      |                |        |                | 7.09   | 13.5           | 4.30 | 3.85           | 3.02   | 1.54           | 1.95 | 0.55           | 1.13 | 0.15           |
| 50                                                                                                           |      |                |        |                | 7.88   | 16.5           | 4.78 | 4.68           | 3.35   | 1.93           | 2.17 | 0.67           | 1.26 | 0.18           |

**SANITARY ENGINEERING**

|     |  |  |  |  |      |      |      |      |      |      |      |      |      |      |
|-----|--|--|--|--|------|------|------|------|------|------|------|------|------|------|
| 60  |  |  |  |  | 9.47 | 23.6 | 5.74 | 6.62 | 4.02 | 2.72 | 2.60 | 0.94 | 1.51 | 0.25 |
| 70  |  |  |  |  |      |      | 6.70 | 8.86 | 4.69 | 3.67 | 3.04 | 1.25 | 1.76 | 0.33 |
| 80  |  |  |  |  |      |      | 7.65 | 11.5 | 5.36 | 4.69 | 3.47 | 1.59 | 2.02 | 0.42 |
| 90  |  |  |  |  |      |      | 8.60 | 14.3 | 6.03 | 5.83 | 3.91 | 1.99 | 2.27 | 0.52 |
| 100 |  |  |  |  |      |      |      |      | 6.70 | 7.13 | 4.34 | 2.42 | 2.52 | 0.63 |
| 125 |  |  |  |  |      |      |      |      | 8.38 | 10.9 | 5.43 | 3.72 | 3.15 | 0.96 |
| 150 |  |  |  |  |      |      |      |      |      |      | 6.51 | 5.16 | 3.78 | 1.34 |
| 175 |  |  |  |  |      |      |      |      |      |      | 7.60 | 6.90 | 4.41 | 1.79 |
| 200 |  |  |  |  |      |      |      |      |      |      | 8.68 | 8.93 | 5.04 | 2.27 |
| 225 |  |  |  |  |      |      |      |      |      |      |      |      | 5.67 | 2.84 |
| 250 |  |  |  |  |      |      |      |      |      |      |      |      | 6.30 | 3.37 |
| 275 |  |  |  |  |      |      |      |      |      |      |      |      | 6.93 | 4.13 |
| 300 |  |  |  |  |      |      |      |      |      |      |      |      | 7.56 | 4.87 |
| 325 |  |  |  |  |      |      |      |      |      |      |      |      | 8.19 | 5.70 |

<sup>1</sup> This figure is based on flows for PVC Schedule 40 pipe (flow coefficient: C-150). Other values for friction loss may be used if documentation from the pipe manufacturer is provided with the plan submittal. Calculations using the Hazen-Williams equation may be used if provided with the plan submittal.

<sup>2</sup> Flow velocity must be at least 2 fps; flow velocities above 5 fps should be avoided.

**Table X - Plastic Pipe Fittings: Friction Loss - Equivalent Length of Straight Pipe (ft.)\***

| Fitting:                                 | 1"  | 1 1/4" | 1 1/2" | 2"   | 2 1/2" | 3"   | 4"   |
|------------------------------------------|-----|--------|--------|------|--------|------|------|
| 90° elbow, standard sharp, inside radius | 5.3 | 6.7    | 7.5    | 8.6  | 9.3    | 11.1 | 13.1 |
| 90° elbow, long sweep radius             | 2.5 | 3.8    | 4.0    | 5.7  | 6.9    | 7.9  | 12.0 |
| 45° elbow, standard                      | 1.4 | 1.8    | 2.1    | 2.6  | 3.1    | 4.0  | 5.1  |
| Tee Flow (run flow)                      | 1.7 | 2.3    | 2.7    | 4.3  | 5.1    | 6.2  | 8.3  |
| Tee Flow (branch flow)                   | 6.0 | 7.0    | 8.0    | 12.0 | 15.0   | 16.0 | 22.0 |
| Gate Valve                               | 0.6 | 0.8    | 1.0    | 1.5  | 1.6    | 2.0  | 3.0  |
| Male/Female adapter                      | 2.0 | 2.8    | 3.5    | 4.5  | 5.5    | 6.5  | 9.0  |

\*Assigned values. Other values for friction loss may be used if documentation from the pipe manufacturer is provided with the plan submittal.

*(Indiana State Department of Health; 410 IAC 6-8.3-76; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-77 Subsurface trench alternating field on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 77. (a) Subsurface trench alternating field on-site sewage systems shall meet all of the requirements of:

(1) sections 74 and 75 of this rule; and

(2) this section.

(b) Each side of the soil absorption system shall contain the total square footage of soil absorption area calculated from section 74(a) of this rule.

(c) A diversion valve shall be installed between the septic tank and the distribution boxes. An access riser, extending to the ground surface, shall be installed over the diversion valve. *(Indiana State Department of Health; 410 IAC 6-8.3-77; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

**410 IAC 6-8.3-78 Subsurface trench pressure distribution on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 78. (a) Subsurface trench pressure distribution on-site sewage systems shall meet all of the requirements of:

(1) section 74 of this rule; and

(2) this section.

(b) Each pipe connected to an outlet in the manifold of a subsurface pressure distribution on-site sewage system shall be counted as a separate distribution lateral.

(c) An inline residual pressure of two and five-tenths (2.5) to three (3) feet of head shall be maintained in the pressure distribution lateral at the highest elevation in the soil absorption system during pumping.

(d) The effluent pump shall be sized and its controls set as follows:

(1) When a subsurface pressure distribution on-site sewage system is designed using a soil loading rate of less than one and two-tenths (1.2) gallons per day per square foot, the pump shall deliver the DDF to the soil absorption field in each dose.

(2) When a subsurface pressure distribution on-site sewage system is designed using a soil loading rate of one and two-tenths (1.2) gallons per day per square foot, the pump shall deliver four (4) doses each day, each dose being approximately one-fourth (1/4) of the DDF.

(e) The effluent force main shall drain unless it is installed below the frost line, as listed in Table VIII in section 76(d) of this rule and designed so that no effluent remains in any portion of the effluent force main located above the frost line.

(f) The liquid holding capacity of the dosing tank shall be determined as follows:

(1) If the effluent force main drains to the subsurface pressure distribution on-site sewage system, or if it does not drain between doses, the dosing tank volume shall be the dose calculated using subsection (d)(1) or (d)(2), whichever is applicable.

(2) If the effluent force main drains back to the dosing tank, the dosing tank volume shall be the dose calculated using subsection (d)(1) or (d)(2), whichever is applicable, plus the volume contained in the effluent force main.

(3) Additional dosing tank capacity must be provided to:

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

(B) provide sufficient freeboard for a high water alarm.

(g) For installation for a subsurface trench pressure distribution on-site sewage system, the effluent force main shall be stabilized and backfilled without damaging the pipe with debris-free soil material to prevent the movement of effluent along the outside of the pipe.

(h) The minimum inside diameter of the effluent force main shall be one and one-half (1 1/2) inches. The maximum inside diameter of the effluent force main shall be four (4) inches.

(i) Tables IX and X in section 76(h) of this rule shall be used in determining friction losses in the effluent force mains and manifold when plastic pipe is used.

(j) The minimum inside diameter of the manifold shall be one (1) inch. The maximum inside diameter of the manifold shall be six (6) inches. The manifold pipe diameter shall be determined from Table XI as follows:

**Table XI**  
**Manifold Diameters for Various Manifold Lengths, Number of**  
**Laterals and Lateral Discharge Rates (for Plastic Pipe Only.)**

|                  |    | Manifold Diameter (IN)                   |        |        |    |    |    |    |    |    |    |                        |              |
|------------------|----|------------------------------------------|--------|--------|----|----|----|----|----|----|----|------------------------|--------------|
|                  |    | Manifold Length (ft.)                    |        |        |    |    |    |    |    |    |    |                        |              |
|                  |    | 5                                        | 10     | 15     | 20 | 25 | 30 | 35 | 40 | 45 | 50 | Flow per Lateral (gpm) |              |
|                  |    | Number of Laterals with Central Manifold |        |        |    |    |    |    |    |    |    |                        |              |
|                  |    | 4                                        | 6      | 8      | 10 | 12 | 14 | 16 | 18 | 20 | 22 |                        |              |
| Central Manifold | 5  | 1"                                       | 1 1/4" | 1 1/2" | 2" | 2" | 2" | 2" | 3" | 3" | 3" |                        | 10           |
|                  | 10 | 1 1/4"                                   | 1 1/2" | 2"     | 2" | 2" | 3" | 3" | 4" | 4" | 4" |                        | 20           |
|                  | 15 | 1 1/2"                                   | 2"     | 2"     | 3" | 3" | 3" | 4" | 4" | 4" | 4" |                        | 30           |
|                  | 20 | 2"                                       | 2"     | 3"     | 3" | 4" | 4" | 4" | 6" | 6" | 6" |                        | 40           |
|                  | 25 | 2"                                       | 3"     | 3"     | 4" | 4" | 6" | 6" | 6" | 6" | 6" |                        | 50           |
|                  |    | Number of Laterals with End Manifold     |        |        |    |    |    |    |    |    |    |                        | End Manifold |
|                  |    | 2                                        | 3      | 4      | 5  | 6  | 7  | 8  | 9  | 10 | 11 |                        |              |

**Computed for Plastic Pipe Only. The Hazen-Williams equation was used to compute headlosses through each segment (Hazen-Williams  $C_H=150$ ). The maximum manifold length for a given lateral discharge rate and spacing was defined as that length at which the difference between the heads at the distal and supply ends of the manifold exceeded 10 percent of the head at the distal end.**

(k) The minimum inside diameter of the pressure distribution laterals from the manifold shall be one (1) inch. The maximum inside diameter of the pressure distribution laterals shall be three (3) inches.

(l) Table XII, as follows, may be used to calculate pipe volumes:

| Table XII - Pipe Volume for Various Diameter Pipes (gal/ft)                                                                                                                     |      |       |       |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-------|------|------|------|
| Pipe Diameter (in)                                                                                                                                                              | 1    | 1 1/4 | 1 1/2 | 2*   | 3*   | 4*   |
| Volume (gal/ft)                                                                                                                                                                 | .045 | .078  | .106  | .174 | .384 | .650 |
| *These diameters and pipe volumes are for calculating the total volume of the effluent force main. They are not used for calculating volumes of pressure distribution laterals. |      |       |       |      |      |      |

(m) The pressure distribution laterals shall have one (1) row of holes spaced in accordance with Table XIII as follows:

| Table XIII - Soil Loading Rates Versus Pressure Distribution Lateral Hole Spacing for Subsurface Trench Pressure Distribution Systems |                                         |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Soil Loading Rates: Gallons per Day per Square Foot                                                                                   | Lateral Hole Spacing Feet Between Holes |
| 1.2                                                                                                                                   | 3                                       |
| 0.75                                                                                                                                  | 3 to 5                                  |
| 0.5 and 0.6                                                                                                                           | 3 to 6                                  |
| 0.25 and 0.3                                                                                                                          | 3 to 7                                  |

(n) The holes in the pressure distribution laterals shall be placed in the trenches facing down, and all burrs shall be removed from the edges of the holes.

(o) The hole size in the pressure distribution laterals shall be one-fourth (1/4) inch.

(p) The perforation discharge rate shall be determined in accordance with the formula used to compute the flow from a hole in the pressure distribution lateral at inline head as follows:

$$Q = 11.78(d^2)(\sqrt{H})$$

Where: Q = the volume of the flow from the hole.  
d = the diameter of the hole in the pipe.

H = the inline head at the hole.

Table XIV, as follows, gives the discharge rates at varying heads that would be obtained using the formula above in which "d" equals one-fourth (1/4) inch diameter holes:

| Table XIV - Perforation Discharge Rates in GPM at Varying Inline Heads for 1/4 Inch Diameter Hole Size |                                                 |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Inline Head (feet)                                                                                     | Perforation Discharge Rate (gallons per minute) |
| 2.5                                                                                                    | 1.17                                            |
| 3.0                                                                                                    | 1.28                                            |
| 3.5                                                                                                    | 1.38                                            |
| 4.0                                                                                                    | 1.47                                            |
| 4.5                                                                                                    | 1.56                                            |
| 5.0                                                                                                    | 1.65                                            |
| 5.5                                                                                                    | 1.73                                            |

(q) Effluent pump selection for soil absorption systems using pressure distribution shall be based on the manufacturer's pump curves for the required pump discharge rate at the total head imposed on the pump. The pump discharge rate for level on-site sewage systems is calculated by using the following formula:

Pump discharge rate = Perforation discharge rate × total number of perforations

To obtain the pump discharge rate required for sloping sites, the rate must be calculated individually for each pressure distribution lateral using the pump discharge rate formula based on the pressure on that line, and the sum of the calculated discharge rates determined for each individual line.

(r) The end of each pressure distribution lateral shall be capped, and a one-fourth (1/4) inch hole shall be drilled in the upper half of the end cap.

(s) All joints, including the end cap, shall withstand the pressures exerted on them. (*Indiana State Department of Health; 410 IAC 6-8.3-78; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-79 Elevated sand mound on-site sewage systems: design of the aggregate bed**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 79. (a) The size of the aggregate bed shall be determined from the following:

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

$$\text{minimum aggregate bed area (ft}^2\text{) (AB)} = \frac{\text{DDF (150 gal. x number of bedrooms and bedroom equivalents)(in gpd)}}{1.2 \text{ gpd/ft}^2}$$

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

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

(A) The maximum aggregate bed width (ft.)(AB<sub>w</sub>) = 0.83 ft<sup>2</sup>/gpd

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

SLR is soil loading rate, and

where: DDF is design daily flow, and

n is determined by the DDF in this chart

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

(B) For on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, the width of the

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

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

aggregate bed shall be at least four (4) feet and not greater than ten (10) feet. The aggregate bed width shall not exceed the maximum bed width calculated in clause (A).

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

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

(ii) If the soil loading rate is greater than fifty-hundredths (0.50) gallons per day per square foot (gpd/ft<sup>2</sup>), the width of the aggregate bed shall be not greater than twenty (20) feet, and shall not exceed 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 XV in section 80(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.

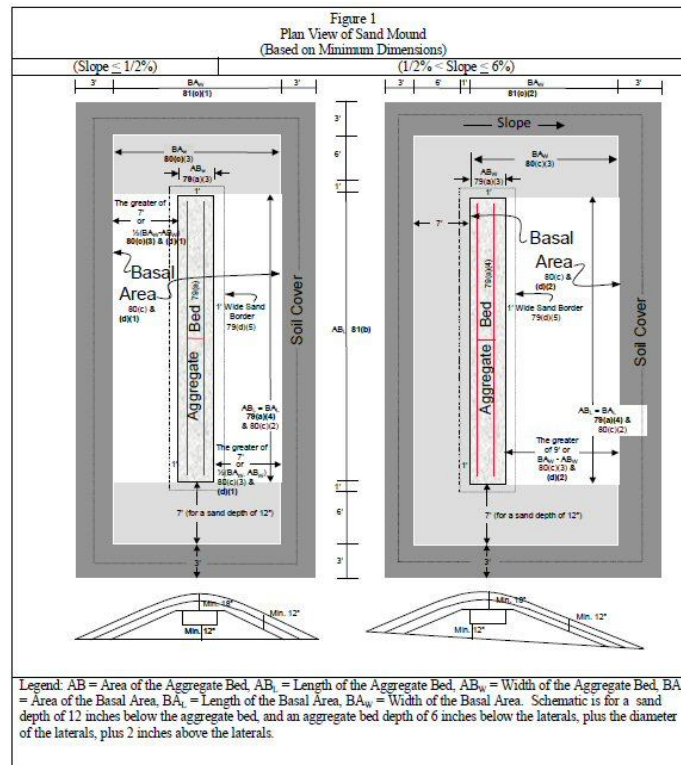
(2) The bottom of the aggregate bed shall be level along its length and width.

(3) Aggregate used in the aggregate bed shall comply with the requirements of section 68 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:



(Indiana State Department of Health; 410 IAC 6-8.3-79; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA; errata filed Apr 23, 2013, 11:44 a.m.: 20130508-IR-410130165ACA)

#### 410 IAC 6-8.3-80 Elevated sand mound on-site sewage systems: design of basal area

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 80. (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.

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

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

$$\text{Minimum basal area (ft}^2\text{)(BA)} = \frac{\text{DDF (150 gal.} \times \text{number of bedrooms and bedroom equivalents)(in gpd)}}{\text{soil loading rate (SLR)}}$$

using the soil loading rates from Table V in section 72(b)(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 (20) inches below the ground surface.

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

(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.                |

|                                 |                             |
|---------------------------------|-----------------------------|
| $1/2\% < \text{slope} \leq 6\%$ | 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).

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

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

(2) on sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), the area under the aggregate bed and extending directly downslope from the aggregate bed.

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

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

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

(f) The basal area shall be constructed on the tilled surface of the soil absorption system site in accordance with the provisions of section 87 of this rule.

(g) The long axis of the basal area and elevated sand mound shall be constructed along the contour of the soil absorption system site.

(h) The minimum depth of the INDOT Specification 23 sand under the aggregate bed shall be twelve (12) inches.

(i) The INDOT Specification 23 sand shall have a minimum final grade on all sides of three-to-one (3:1).

(j) The INDOT Specification 23 sand used in the elevated sand mound shall meet the following standard:

| Table XV - INDOT Specification 23 Sand* |                                       |
|-----------------------------------------|---------------------------------------|
| 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 shall not have more than forty-five percent (45%) retained between any two (2) consecutive sieves.

(k) Figure 1 in section 79(d) of this rule presents a visual depiction of the location of the basal area within the elevated sand mound. (*Indiana State Department of Health; 410 IAC 6-8.3-80; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-81 Elevated sand mound on-site sewage systems: dimensions of the elevated sand mound**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 81. (a) Numerical dimensions for the soil material cover from the edge of the basal area to the edge of the elevated sand mound are based on a final grade of three-to-one (3:1) (on level sites). The plan views and numerical dimensions are for a simple slope (a slope that forms a plane). Elevated sand mounds sited on complex slopes are more difficult to design and construct on contour.

(b) The minimum length of an elevated sand mound shall be the sum of the following:

(1) The length of the aggregate bed ( $AB_L$ ).

(2) Plus fourteen (14) feet, representing the two sideslopes of INDOT Specification 23 sand at both ends of the aggregate bed (including the one (1) foot level borders). A minimum endslope grade of three-to-one (3:1) shall be maintained on the INDOT Specification 23 sand.

(3) Plus six (6) feet, representing the soil material cover at both ends of the aggregate bed. A minimum endslope grade of

three-to-one (3:1) shall be maintained on the soil cover material.

(c) The minimum width of the elevated sand mound shall be determined from the following:

(1) On sites with slopes one-half percent (1/2%) or less, the minimum width of an elevated sand mound is the sum of the following:

(A) The basal area width ( $BA_w$ ) as determined in section 80(c)(3) of this rule.

(B) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed.

(2) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), the minimum width of an elevated sand mound shall be the sum of the following:

(A) The basal area width ( $BA_w$ ) as determined in section 80(c)(3) of this rule.

(B) Plus seven (7) feet, representing the sideslope of INDOT Specification 23 sand on the upslope side of the aggregate bed (including the one (1) foot level border), and shall maintain a minimum sideslope grade of three-to-one (3:1).

(C) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed. A minimum sideslope grade of three-to-one (3:1) shall be maintained on the soil cover material.

*(Indiana State Department of Health; 410 IAC 6-8.3-81; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-82 Elevated sand mound on-site sewage systems: pressure distribution network**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 82. (a) The effluent force main shall drain unless it is installed below the frost line, as listed in Table VIII in section 76(d) of this rule, and designed so that no effluent remains in any portion of the effluent force main located above the frost line.

(b) The effluent pump shall be sized, and its controls set, to deliver approximately one-fourth (1/4) of the DDF per dose.

(c) The liquid holding capacity of the dosing tank shall be determined as follows:

(1) If the effluent force main and manifold do not drain to the dosing tank, the dosing tank volume shall be one-fourth (1/4) of the DDF.

(2) If the effluent force main and manifold drain to the dosing tank, the dosing tank volume shall be one-fourth (1/4) of the DDF plus the volume of the effluent force main.

(3) Additional dosing tank capacity must be provided to:

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

(B) provide sufficient freeboard for a high water alarm.

(d) The minimum inside diameter of the effluent force main shall be one and one-half (1 1/2) inches. The maximum inside diameter of the effluent force main shall be four (4) inches.

(e) Tables IX and X in section 76(h) of this rule, or equivalent tables provided by the pipe manufacturer, shall be used in determining friction losses in the effluent force main and manifold when plastic pipe is used. The Hazen-Williams equation may also be used to determine friction loss in the effluent force main and manifold.

(f) The design of the pressure distribution network shall meet the following requirements:

(1) The effluent force main shall approach the elevated sand mound as follows:

(A) On sites with slopes of one-half percent (1/2%) or less, from either end.

(B) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), from the upslope side. If approach from the upslope side of the elevated sand mound is not possible due to site limitations, the effluent force main may approach from either end.

(2) The design (location) of the effluent force main shall provide for minimal disturbance of the basal area during installation.

(g) Manifolds shall be installed between the effluent force main and the pressure distribution laterals as follows:

(1) The manifold shall be located in the aggregate bed.

(2) The manifold pipe shall:

(A) for on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, have a diameter of two (2) inches; or

(B) for on-site sewage systems with a DDF of greater than seven hundred fifty (750) gallons per day, have the same

diameter as the effluent force main or a diameter of two (2) inches, whichever is greater, but no greater than four (4) inches.

(h) The pressure distribution laterals shall meet the following requirements:

(1) Each pressure distribution lateral shall connect directly to the manifold.

(2) The length of each lateral shall be calculated as: Lateral length ( $L_{Lat}$ ) =  $(AB_L - 3)/2$

(3) No single pressure distribution lateral (from the manifold to the end cap) shall exceed fifty-five (55) feet in length.

(4) The diameter of the pressure distribution laterals shall be determined from Table XVI, as follows:

| Table XVI - Pressure Distribution Lateral Diameter for Elevated Sand Mounds*                                 |                 |                                  |                                  |
|--------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------|----------------------------------|
| Lateral Length, L (ft.)                                                                                      | $L \leq 25$ ft. | $25 \text{ ft.} < L \leq 40$ ft. | $40 \text{ ft.} < L \leq 55$ ft. |
| Diameter (in.)                                                                                               | 1 in.           | 1 1/4 in.                        | 1 1/2 in.                        |
| *Pressure distribution lateral diameters for one-quarter (1/4) in. holes spaced at three (3) ft. on centers. |                 |                                  |                                  |

(5) Pressure distribution laterals shall have one (1) row of holes with three (3) feet on center spacing.

(6) The holes in the pressure distribution laterals shall be one-quarter (1/4) inch in diameter.

(7) The number of holes per lateral, including the hole in the end cap, shall be calculated as:

$$\text{Number of holes per lateral} = (L_{Lat} - 1.50/3) + X;$$

where:  $X = 1$  if  $R < 0.5$ ; and  $X = 2$  if  $R \geq 0.5$ ; and

$R$  = the remainder from the mathematical equation.

(8) The first hole in each lateral shall be eighteen (18) inches from the center of the manifold.

(9) The last hole in the pressure distribution lateral before the end cap shall be at not less than eighteen (18) inches and not more than thirty-six (36) inches from the end cap.

(10) The end of each lateral shall be capped, and a one-fourth (1/4) inch hole shall be drilled in the upper half of the end cap.

(11) Burrs shall be removed from the edges of all holes and from the interiors of all laterals.

(12) All pressure distribution laterals shall be:

(A) at the same elevation; and

(B) level throughout their lengths.

(13) The pressure distribution laterals shall be placed in the aggregate bed with all holes, except the end cap holes, facing down.

(i) Pressure distribution laterals shall be laid out as shown in Figure 2, as follows:

(1) The separation distance between pressure distribution laterals shall be not less than twenty-four (24) inches and not more than thirty-six (36) inches.

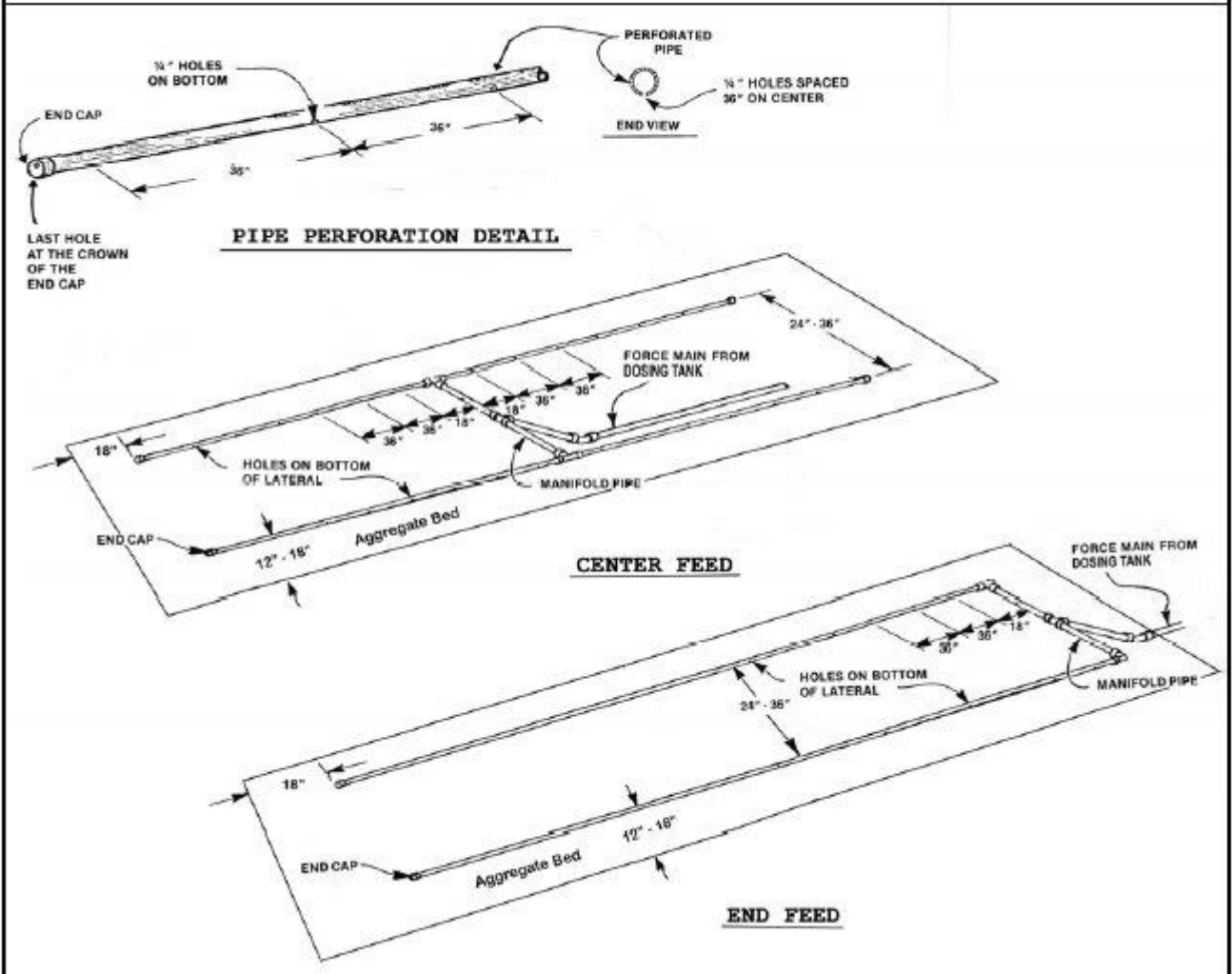
(2) Pressure distribution laterals shall be located not less than twelve (12) inches and not more than eighteen (18) inches from the sides of the aggregate bed along the length of the lateral.

(3) Pressure distribution laterals shall be attached to the manifold using nondirectional fittings designed to withstand the required pressures exerted on them.

(4) The end of each pressure distribution lateral with the hole in the end cap of the lateral shall be eighteen (18) inches from

t h e e n d o f t h e a g g r e g a t e

Figure 2 – Plan View of Pressure Distribution Laterals in an Aggregate Bed of an Elevated Sand Mound



(5) All joints, including the end caps, shall withstand the pressures exerted on them.

(j) Effluent pump selection for elevated sand mound on-site sewage systems shall be based on the manufacturer's pump curves for the required pump discharge rate at the total dynamic head imposed on the pump, as follows:

(1) The total discharge rate of the effluent pump shall be the total number of one-quarter (1/4) inch holes in all laterals (including the holes in the end caps) times one and twenty-eight hundredths (1.28) gallons per minute (gpm).

(2) The total dynamic head imposed on the pump shall be the sum of the following:

(A) The design head shall be three (3) feet.

(B) Plus friction loss in the effluent force main and manifold as determined by Tables IX and X in section 76(h) of this rule when plastic pipe is used.

(C) Plus the static head which is the difference in elevation from the effluent pump and the highest point in the effluent force main or the connection to the manifold, whichever is the highest elevation.

(Indiana State Department of Health; 410 IAC 6-8.3-82; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)

**410 IAC 6-8.3-83 Elevated sand mound on-site sewage systems: protection of the site**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 83. (a) Before the start of any construction on the property, the following areas must be staked out and protected from disturbance:

- (1) The soil absorption system area.
- (2) The dispersal area.
- (3) The subsurface drainage system area.
- (4) The set-aside area (if required in the approved plan).
- (5) Areas designated for future expansion (if required in the approved plan).

(b) Special caution shall be taken to prevent wheeled and tracked vehicles from compacting the area selected for placement of the elevated sand mound soil absorption system before, during, and after construction, especially during wet weather. Alteration of soil structure by movement of vehicles may be grounds for rejection of the site or the on-site sewage system, or both. (*Indiana State Department of Health; 410 IAC 6-8.3-83; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-84 Elevated sand mound on-site sewage systems: requirements for system construction**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 84. (a) Site preparation, tilling, construction, finish grading, and soil stabilization shall:

- (1) be performed in accordance with the approved plans; and
- (2) not be performed when the soil is frozen.

(b) Elevated sand mound 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 depth of tilling, to assure that the plastic limit of the soil is not exceeded.

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

(*Indiana State Department of Health; 410 IAC 6-8.3-84; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

**410 IAC 6-8.3-85 Elevated sand mound on-site sewage systems: installation of the effluent force main**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 85. (a) To minimize disturbance of the basal area, the effluent force main must be brought above grade prior to entering the basal area and it must be extended upward through the INDOT Specification 23 sand to the point where it will enter the aggregate bed. The effluent force main shall be laid in the aggregate bed to the point of connection to the manifold.

(b) If the effluent force main is installed prior to tilling the elevated sand mound site, the following apply:

- (1) The effluent force main must be installed a minimum of sixteen (16) inches below existing grade from the outlet of the

dosing tank to the point where it comes up through the INDOT Specification 23 sand, outside of the basal area.

(2) The end of the effluent force main shall be fitted with a temporary vertical pipe extending at least three (3) feet above grade and temporarily capped during the construction process.

(3) The portion of the effluent force main which comes above existing grade must be bedded and stabilized properly as the sand is applied.

(c) If the effluent force main is installed after tilling of the site and placement of the INDOT Specification 23 sand, the following apply:

(1) The excavation must be hand dug through the INDOT Specification 23 sand.

(2) Dirt, sand, and debris must be prevented from entering the effluent force main during installation.

(3) The portion of the effluent force main that is installed in the INDOT Specification 23 sand must be properly bedded and stabilized.

*(Indiana State Department of Health; 410 IAC 6-8.3-85; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA)*

#### **410 IAC 6-8.3-86 Elevated sand mound on-site sewage systems: preparation of the site**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 86. (a) For all elevated sand mound sites, the following requirements shall be met for site preparation:

(1) Vegetation that would interfere with the soils evaluation, system layout, or system construction shall be cut and removed (not scraped) prior to installation without causing compaction.

(2) Trees shall be cut off at the ground surface and removed, with only stumps left in place. The local health department may require scarring of the tree stumps.

(3) Tree roots that protrude above the tilled surface shall be cut off and removed without causing compacted soil material.

(4) The portion of the elevated sand mound site receiving INDOT Specification 23 sand shall be tilled along the contour of the site to a depth of seven (7) inches to fourteen (14) inches with a moldboard or chisel plow, or a bulldozer with a ripper. A backhoe may be used to till sites with special considerations as noted in subsection (b). The department or local health department may require field supervision of tilling operations, as follows:

(A) If a chisel plow or a bulldozer with a ripper is used, tillage shall be across the site along the contour of the site.

(B) If a moldboard plow is used:

(i) it shall have at least two (2) bottoms and make only one (1) pass across the area, along the contour of the site; and

(ii) on sites with slopes greater than one-half percent (1/2%), the furrows shall be turned upslope.

(b) For wooded sites, and sites that limit the use of larger equipment, a backhoe may be used to till the site if the following requirements are met:

(1) The use of a backhoe shall be approved, in writing, by the department or local health department.

(2) Tilling shall be performed along the contour of the site.

(3) The surface of the ground shall be tilled with the chisel teeth fitted onto the backhoe bucket.

(4) The backhoe shall remain on untilled soil.

(5) If a moldboard plow, chisel plow, or bulldozer with a ripper is used to till the site, the provisions of subsection (a)(4) must be utilized.

(c) If compacted soil material is identified in the soil from the surface to a depth of twelve (12) inches, tilling of the soil shall be to a depth of at least two (2) inches below the bottom of the compacted soil material. If compacted soil material is identified in the soil at a depth greater than twelve (12) inches, the site is unsuitable for elevated sand mound construction, unless the compaction is broken up by a method approved by the department. *(Indiana State Department of Health; 410 IAC 6-8.3-86; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA; filed Aug 28, 2013, 10:23 a.m.: 20130925-IR-410120615FRA)*

#### **410 IAC 6-8.3-87 Elevated sand mound on-site sewage systems: placement of the sand on the basal area**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 87. (a) The basal area shall be covered using sand that meets the requirements listed in Table XV in section 80(j) of this rule.

(b) INDOT Specification 23 sand shall be placed on the tilled area immediately after tilling the site to protect the tilled surfaces from damage by precipitation.

(c) The depth of the INDOT Specification 23 sand under the aggregate bed shall be at least twelve (12) inches (on sites with slopes greater than one-half percent (1/2%), the depth of INDOT Specification 23 sand beneath the downslope side of the aggregate bed will be greater than twelve (12) inches).

(d) INDOT Specification 23 sand shall be placed on the tilled surface as follows:

(1) On sites with slopes one-half percent (1/2%) or less, from the ends of the elevated sand mound.

(2) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), from the ends or upslope edge of the elevated sand mound.

(e) At least six (6) inches of INDOT Specification 23 sand shall be kept between the vehicle tracks or tires and the tilled soil of the site.

(f) The depth of INDOT Specification 23 sand around the aggregate bed shall be the sum of:

(1) the depth of the sand under the aggregate bed; and

(2) the depth of the aggregate bed.

(g) A one (1) foot wide border of INDOT Specification 23 sand shall surround the aggregate bed, level with the top of the aggregate bed. (*Indiana State Department of Health; 410 IAC 6-8.3-87; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-88 Elevated sand mound on-site sewage systems: construction of the aggregate bed**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 88. (a) The surface of the INDOT Specification 23 sand at the sand/aggregate interface shall be smooth and free of ruts and depressions before the placement of the aggregate.

(b) The depth of aggregate in the aggregate bed from side to side and end to end shall be at least:

(1) six (6) inches below the pressure distribution laterals;

(2) plus the outside diameter of the pressure distribution laterals; and

(3) plus two (2) inches above the pressure distribution laterals.

(c) The aggregate bed shall be covered with a barrier material which meets the minimum requirements of section 69 of this rule. The barrier material shall cover the aggregate bed from side to side and from end to end. (*Indiana State Department of Health; 410 IAC 6-8.3-88; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-89 Elevated sand mound on-site sewage systems: placement of the soil material and final grade**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 89. (a) If the ground surface along the perimeter of the INDOT Specification 23 sand was not tilled during preparation of the elevated sand mound site, the perimeter shall be prepared by tilling in accordance with the requirements of section 86 of this rule.

(b) The soil material cover shall:

(1) have a texture other than sand or loamy sand;

(2) be capable of sustaining plant growth; and

(3) be placed on the INDOT Specification 23 sand without causing compacted soil material.

(c) Prior to placement of the soil cover material, the surface of the INDOT Specification 23 sand shall be prepared by:

(1) maintaining a minimum grade of at least three-to-one (3:1); and

(2) preparing the surface of the INDOT Specification 23 sand so that it is smooth and free of ruts and depressions.

(d) The aggregate and sand of the elevated sand mound shall be covered with a minimum of twelve (12) inches of soil

material. An additional six (6) inches of that soil material, for a total of eighteen (18) inches, shall be placed over the center line of the long axis of the aggregate bed and crowned to promote surface runoff away from the elevated sand mound.

(e) Soil material shall be placed on the tilled portion of the sand perimeter and graded according to the requirements of subsection (f).

(f) The soil material cover shall have a minimum final grade on all sides of three-to-one (3:1).

(g) The elevated sand mound shall be seeded or sodded with grasses adapted to the area. If seeded, the elevated sand mound shall be protected by a cover of straw, burlap, or some other biodegradable material that will protect it against erosion. (*Indiana State Department of Health; 410 IAC 6-8.3-89; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-90 Abandonment of an on-site sewage system**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 90. (a) When the use of an on-site sewage system is discontinued, the following procedure must be followed for all tanks and electrical service:

(1) Electrical power must be disconnected at the source. All controls and panels must be removed.

(2) All above ground electrical lines (including buried service lines) that will not be used for other purposes must be removed.

(3) A licensed septic tank cleaner must pump all contents from all tanks in the on-site sewage system.

(4) The tanks must either be:

(A) removed or the lids crushed into the tanks and the holes or tanks backfilled with debris-free sand or other granular material, concrete, or soil material that is compacted to prevent settling (if a sand mound is being abandoned, sand, aggregate and soil cover from the sand mound may be used for filling the tank or tanks); or

(B) filled with flowable fill.

(5) Properly grade and establish vegetative cover.

(b) The components of the soil absorption system may be left intact, if there are no plans to use the area for other purposes.

Vegetative cover must be maintained.

(c) If effluent has surfaced, those areas must be covered with hydrated lime followed by top soil and a vegetative cover.

(d) If components of the soil absorption system are to be removed, the following procedure must be used:

(1) A licensed septic tank cleaner must pump all contents from all distribution boxes in the on-site sewage system.

(2) Allow sufficient time after the on-site sewage system is taken out of service and the tanks pumped to make sure the entire soil absorption system is completely dry.

(3) A contractor must remove the distribution network, aggregate, and sand (if any) from the site.

(4) The contractor must dispose of the materials at a licensed landfill.

(5) The site must be properly graded and a vegetative cover established.

(e) Written documentation of tank abandonment must be provided to the local health department by the homeowner in the form of a receipt from the contractor. (*Indiana State Department of Health; 410 IAC 6-8.3-90; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

#### **410 IAC 6-8.3-91 Matters incorporated by reference**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 91. (a) Bulletin SE 11, "The Sanitary Vault Privy", 1986 Edition, is incorporated by reference as part of this rule. It is available at the department at 2 North Meridian Street, Indianapolis, Indiana 46204.

(b) NSF/ANSI Standard 40-2010 and Standard 46-2010a are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. Copies of the standards may be obtained by mailing a request to the National Sanitation Foundation, 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, or at:

[www.techstreet.com/cgi-bin/joint.cgi/nsf](http://www.techstreet.com/cgi-bin/joint.cgi/nsf)

(c) ASTM Standards C 923-08, C 990-09, C 1644-06, D 1527-99 (Reapproved 2005), D 1785-06, D 2241-09, D 2282-99 (Reapproved 2005), D 2661-11, D 2665-12, D 2680-01 (Reapproved 2009), D 2729-11, D 2751-05, D 3034-08, D 4355-07, D 4491-99a (Reapproved 2009), D 4533-11, D 4632-08, D 4751-04, D 6241-04 (Reapproved 2009), F 405-05, F480-12, F 667-12, F 810-07, and F 891-10 are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. ASTM standards may be obtained at:

<http://www.astm.org/Standard/index.shtml>

(d) AASHTO Standard M252-09 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at:

<http://www.transportation.org>

(e) NRCS Standard 606, September 2003, is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at:

<http://efotg.nrcs.usda.gov/references/public/AL/tg606.pdf>

(f) INDOT 2012 Standard Specifications, Section 904, Aggregates is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. The standard may be obtained at:

<http://www.in.gov/dot/div/contracts/standards/book/sep11/sep.htm>

(g) NEMA 250-2008 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. The standard may be obtained at: [http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-66a368CFSWFQAodnnii\\_A](http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-66a368CFSWFQAodnnii_A). (*Indiana State Department of Health; 410 IAC 6-8.3-91; filed Oct 19, 2012, 2:06 p.m.: 20121114-IR-410120156FRA*)

## **Rule 9. Agricultural Labor Camp Sanitation and Safety**

### **410 IAC 6-9-1 Definitions**

Authority: IC 16-19-3-4; IC 16-41-26-8

Affected: IC 16-41-26

Sec. 1. (a) The definitions in this section apply throughout this rule.

(b) "Adult" means any person who is eighteen (18) years of age or older.

(c) "Agricultural labor camp" means one (1) or more buildings or structures, tents, trailers, or vehicles, together with the land appertaining thereto, established, operated, and used as living quarters for five (5) or more adult seasonal or temporary workers engaged in agricultural activities, including related food processing.

(d) "Board" means the Indiana state board of health.

(e) "Camp operator" means any person who, within the meaning of the act, operates a camp or holds a permit issued pursuant to the provisions of IC 13-1-9 [*IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.*].

(f) "Community building" means any building provided for general use and in which is located, for general use, any of the following:

(1) Toilet facilities.

(2) Washrooms.

(3) Bathrooms.

(4) Laundry facilities.

(5) Recreation facilities.

(6) Space for other communal activities.

(g) "Garbage" means all putrescible wastes resulting from the handling, processing, preparation, and consumption of food.

(h) "Habitable room" means any enclosed space used or intended to be used in the normal activities of daily living.

(i) "Interference with state board of health agent" means, but is not limited to, physical obstruction, attack, or threatened attack on a representative of the board while that representative is conducting inspection, licensin [*sic.*], or enforcement activities pursuant to IC 13-1-9 [*IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.*] or this rule.

(j) "Living quarters" means any habitable room as well as any building or structure in which is located toilet facilities,

washrooms, bathrooms, and laundry facilities.

(k) "Refuse" means all solid wastes, including garbage, rubbish, and ashes, but excluding body wastes.

(l) "Residents" means those persons who dwell in one (1) shelter at an agricultural labor camp.

(m) "Shelter" means any facility used for the normal activities of daily living.

(n) "Toilet facilities" means those devices provided for individual convenience in the sanitary disposal of body wastes and the structures for their installation and maintenance.

(o) "Violation" means the failure of an agricultural labor camp owner, operator, caretaker, or other person who has a substantial and direct proprietary interest in the camp to abide by a provision of IC 13-1-9 [IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.] or this rule. (Indiana State Department of Health; Reg HSE 29R, Sec 1; filed Aug 29, 1972, 11:00 a.m.: Rules and Regs. 1973, p. 382; filed Sep 29, 1989, 2:02 p.m.: 13 IR 269; filed Dec 4, 1991, 9:30 a.m.: 15 IR 487; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)

#### **410 IAC 6-9-2 Construction notice; permit**

Authority: IC 16-19-3-4; IC 16-41-26-8

Affected: IC 4-21.5; IC 16-41-26

Sec. 2. (a) Any person planning to construct or enlarge for occupancy or use any camp or facility thereto appertaining, or to convert any premises to use as a camp, shall give written notice to the board on such forms as the board may require. This notice shall be given not later than sixty (60) days before the starting date of such construction, enlargement, or conversion. Upon receipt of said notice, the board shall provide necessary information to the notifier, including consultation as indicated. The board may require, and the notifier shall provide, such further information as the board shall need.

(b) Compliance with local laws and regulations shall be accomplished by the notifier.

(c) Application for a permit to operate an agricultural labor camp shall be made to the board in such form and manner as the board may prescribe, and said application shall be made not later than sixty (60) days prior to the start of the operation of the camp.

(d) If, after necessary investigation and inspection, the board is satisfied that the camp is in substantial compliance with statutory and regulatory requirements, a permit shall be issued.

(e) In case of single ownership of multiple camps, each camp, within the meaning of the act, shall have a permit.

(f) When a change of camp operator is contemplated, the new operator shall file an application for a permit with the board within fifteen (15) days of the effective date of the transfer. (Indiana State Department of Health; Reg HSE 29R, Sec 2; filed Aug 29, 1972, 11:00 a.m.: Rules and Regs. 1973, p. 382; filed Sep 29, 1989, 2:02 p.m.: 13 IR 270; filed Dec 4, 1991, 9:30 a.m.: 15 IR 488; filed Apr 16, 1996, 4:10 p.m.: 19 IR 2283; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)

#### **410 IAC 6-9-3 Camp facilities**

Authority: IC 16-19-3-4; IC 16-41-26-8

Affected: IC 16-41-26

Sec. 3. (a) The following requirements pertain to housing sites:

(1) Housing sites shall be well-drained and free from depressions in which water may stagnate. They shall be located where the disposal of sewage is provided in a manner which neither creates nor is likely to create a nuisance or hazard to health.

(2) Housing shall not be subject to, or in proximity to, conditions that create or are likely to create a health or safety hazard.

(3) Grounds within the housing site shall be free from debris, noxious plants such as poison ivy, and uncontrolled weeds or brush.

(4) A minimum distance equal to the height of the structure plus five (5) feet shall be required between all shelters.

(5) A slotted or perforated removable landing or permanent concrete slab having a length and width not less than the width of the door opening shall be located at the outside entrance of each habitable room.

(6) The housing site shall provide a space for recreation reasonably related to the size of the facility and the type of

occupancy.

(7) Farm implements shall not be stored in the camp area when the camp is occupied.

(8) All shelters must be located at least five hundred (500) feet from any livestock harborage which might create nuisance conditions or a health hazard.

(9) Vehicles, refrigerators, or other abandoned appliances must be removed from the camp as soon as they are discarded.

(10) Prior to camp occupancy, any shelter which does not comply with subsection (d) must be razed, removed, or secured to prevent access.

(11) All containers such as used tires, buckets, or pans which might accumulate rainwater must either be removed or kept indoors.

(b) The following requirements pertain to water supplies:

(1) An adequate and convenient supply of water which meets the quality standards of the water pollution control board shall be available at all times in each camp for culinary, drinking, bathing, and laundry purposes. Where a public water supply is available, it shall be used to provide water for the camp.

(2) When wells are used as the source of the camp water supply, they shall be in full compliance with the rules of the water pollution control board.

(3) A cold water tap and an approved drinking fountain with sanitary type angle-stream jet head shall be available within one hundred (100) feet of each individual living unit when water under pressure is not provided in the unit. Adequate drainage facilities shall be provided for overflow and spillage.

(4) Common drinking cups shall not be permitted.

(c) The following requirements pertain to excreta and liquid waste disposal:

(1) Facilities shall be provided and maintained for effective disposal of excreta and liquid waste.

(2) Where public sewer systems are available, all facilities for disposal of excreta and liquid wastes shall be connected thereto.

(3) Where conditions will permit and a public sewage system is not available, sewage treatment or disposal facilities utilizing septic tanks and absorption systems shall be constructed in accordance with 410 IAC 6-10 concerning commercial on-site wastewater disposal.

(4) Sewage treatment facilities which have an effluent discharging into the waters of the state shall be designed, constructed, and maintained in compliance with all applicable rules of the water pollution control board.

(5) Privies must be constructed and maintained in a sanitary condition. In addition:

(A) a vault of sufficient capacity to serve the daily and long term needs of users must be provided;

(B) the vault must be inaccessible to rodents and insects;

(C) a concrete floor slab, base, or vault lid must be provided on which the privy housing or superstructure can be erected; wood floors cannot be utilized;

(D) an earth mound must be maintained around the privy base to divert surface water away from the vault;

(E) seat risers must extend directly from the concrete base, or floor slab, and be constructed of impervious material;

(F) comfortable seats must be provided with tight fitting lids which completely cover the privy seat hole when not in use;

(G) the privy housing structure must afford privacy, and the shelter must be fly-tight, enclosing walls and roof must have no openings or cracks which are not sealed or screened;

(H) a tight fitting door must be provided which is equipped with a self-closing device;

(I) vents, windows, and other openings must be completely screened;

(J) a vertical pipe or enclosed moisture-proof vent duct must extend from the privy vault to a point above the roof peak, be protected by a screening of not less than sixteen (16) mesh at the outlet, and be capped to divert precipitation;

(K) a properly sloped roof of impervious material must be provided with an overhang to prevent ponding of water and leakage into the structure;

(L) adequate illumination of the privy interior must be provided at all times;

(M) the privy must provide user privacy through the installation of privacy partitions around the structure or by use of inside door latches;

(N) privy vaults must be pumped when accumulated wastes are within eighteen (18) inches of the floor slab; and

- (O) privies shall not be located closer than fifty (50) feet from any habitable room or any facility where food is prepared or served.
- (d) The following requirements pertain to housing:
- (1) Housing shall be structurally sound, in good repair, in a sanitary condition, and shall provide protection to the residents against the elements. In addition:
- (A) all shelters must have walls free of cracks and holes;
  - (B) wood shelters must have walls of cleanable, smooth, hard surfaces;
  - (C) all shelters must have exterior doors and screen doors on all exits;
  - (D) doors must have latches or door knobs and must fit tightly in their frames;
  - (E) latches must latch from both the inside and outside;
  - (F) shelter floors must be reasonably level;
  - (G) the interior walls and ceilings of the shelters must either be painted in a light-reflecting color or be constructed or *[sic., of]* easily cleanable materials approved by the board; and
  - (H) all mobile home type shelters shall be installed on a permanent foundation or securely anchored to the ground.
- (2) Housing shall have flooring constructed of rigid materials, smooth finished, readily cleanable, and so located as to prevent the entrance of ground water and surface water, insects, and rodents. All floors shall have a smooth finish and be free of cracks.
- (3) The following minimum space requirements shall be provided until December 31, 1992:
- (A) For sleeping purposes only in family units and in dormitory accommodations using single beds, not less than fifty (50) square feet of floor space per occupant.
  - (B) For sleeping purposes only in family units and in dormitory accommodations using double bunk beds only, not less than forty (40) square feet per occupant.
  - (C) For combined cooking, eating, and sleeping purposes, not less than sixty (60) square feet of floor space per occupant.
  - (D) In mobile home type units provided by a person other than occupant, there shall be at least forty (40) square feet of floor area for each person sleeping therein.
- (4) Separate sleeping accommodations shall be provided for each sex or family.
- (5) Adequate arrangements for handling clothing and storing personal effects for each person or family shall be provided. Three (3) feet of bar and three (3) feet of shelving for each one hundred (100) square feet of floor space will be considered adequate.
- (6) Each living unit shall have a minimum ceiling height of seven (7) feet.
- (7) Each habitable room shall have at least one (1) window or skylight opening directly outdoors. The minimum total glazed area shall equal at least ten percent (10%) of the usable floor area. The total openable area shall equal at least forty-five percent (45%) of the minimum glazed area required, except where comparably adequate ventilation is supplied by mechanical or some other method. In addition:
- (A) all windows shall fit tightly in their frames; and
  - (B) all operable windows must open easily and must be fitted with a latching mechanism.
- (8) All living quarters shall be assigned the same number. Numbers must be at least two (2) inches high and must be painted near the primary entrances in a color contrasting with that of the shelter.
- (9) Each shelter must have the same maximum number of residents allowed under subdivision (3) posted near the primary entrance to the shelters as follows: "Maximum residents" in English, and "Maximos residentes" in Spanish.
- (10) Effective January 1, 1993, all mobile homes used as shelters and equipped with an operable toilet, shower, lavatory, and hot and cold water under pressure, shall provide a minimum floor space of sixty (60) square feet per resident; and all other shelters shall provide a minimum floor space of eighty (80) square feet per resident.
- (e) The following requirements pertain to screening:
- (1) All outside openings shall be protected with screening of not less than sixteen (16) mesh.
  - (2) All screen doors shall be tight fitting, in good repair, and equipped with self-closing devices.
- (f) The following requirements pertain to heating:
- (1) Any camp which is occupied between August 31 and June 1, shall be provided with operable heating equipment of

capacity adequate to maintain a temperature of at least sixty-five degrees Fahrenheit (65° F) in each habitable room during the period of occupancy. A facility provided for cooking purposes does not satisfy the requirements of this subdivision.

(2) Any sources of heat utilizing combustible fuel shall be installed and vented in such a manner as to prevent fire hazards and a dangerous concentration of gases. No portable heaters other than those operated by electricity shall be provided. If a solid or liquid fuel stove is used in a room with wooden or other combustible flooring, there shall be a concrete slab, insulated metal sheet, or other fireproof material on the floor under each stove, extending at least eighteen (18) inches beyond the perimeter of the base of the stove. No facility intended or used for cooking purposes shall be used to heat the living quarters.

(3) Any wall or ceiling within eighteen (18) inches of a solid or liquid fuel stove or a stovepipe shall be fireproof material. A vented metal collar shall be installed around a stovepipe or vent passing through a wall, ceiling, floor, or roof.

(4) When a heating system has automatic controls, the controls shall be of the type which cut off the fuel supply upon the failure or interruption of the flame or ignition, or whenever a predetermined safe temperature or pressure is exceeded.

(5) When gas heaters are used, they must have pilot lights in operation at all times between August 31 and June 1 each year when the shelter is occupied, and each room where gas heaters are installed must have operating instructions posted in English and Spanish.

(6) Unvented kerosene heaters and catalytic type heaters are prohibited.

(7) Venting, fire resistivity, fuel storage and supply, and all other parts of the heating system shall comply with 675 IAC 22-2.1, the Indiana Fire Prevention Code.

(g) The following requirements pertain to electricity and lighting:

(1) Each habitable room and enclosed area in a shelter shall contain:

(A) an overhead light or lights that provide at least twenty (20) foot-candles of illumination throughout the room; and

(B) a minimum of three (3) operable wall-type duplex electrical outlets in each room, located so that at least two (2) walls have outlets.

(2) Adequate lighting shall be provided for the yard area and pathways to common use facilities.

(3) All wiring and lighting fixtures shall be installed and maintained in a safe condition. After the effective date of this rule, all newly installed wiring and lighting fixtures shall be installed and maintained in compliance with 675 IAC 17, the Indiana Electrical Code.

(4) Hallways and stairways shall be adequately lighted. Stairways shall have two (2) switches, one (1) at each end controlling an overhead light fixture.

(5) In cooking areas of family living units, at least twenty (20) foot-candles of illumination shall be provided.

(6) Each shelter shall have a fuse box with circuit breaker or fuses, sized to meet the requirements of 675 IAC 17, the Indiana Electrical Code.

(h) The following requirements pertain to toilets:

(1) Toilets shall be constructed, located, and maintained so as to prevent any nuisance or public health hazard.

(2) Water closets or privy seats for each sex shall be in the ratio of not less than one (1) such unit for each fifteen (15) residents, with a minimum of one (1) unit for each sex in common use facilities.

(3) Urinals, constructed of nonabsorbent materials, may be substituted for men's toilet seats on the basis of one (1) urinal for one (1) toilet seat up to a maximum of one-third (a) of the required toilet seats.

(4) Except in individual family units, separate toilet accommodations for men and women shall be provided. If toilet facilities for men and women are in the same building, they shall be separated by a solid wall from floor to roof or ceiling. Toilets shall be distinctly marked "men" and "women" in English and in Spanish. International symbols may be used in lieu of English and Spanish designations.

(5) All common use rooms containing sanitary or laundry facilities shall have the following:

(A) Walls and partitions around toilets, showers, lavatories, and other plumbing fixtures, constructed of smooth, nonabsorbent, easily cleanable materials.

(B) Bathing and handwashing facilities supplied with hot and cold water under pressure. Hot water provided for showers and handwashing facilities shall be maintained between one hundred five degrees Fahrenheit (105° F) and one hundred twenty degrees Fahrenheit (120° F). An approved antiscald device shall be provided to automatically control the hot water temperature so that it cannot exceed one hundred twenty degrees Fahrenheit (120° F). All new and replacement faucets installed on bathing and handwashing facilities after the effective date of this rule shall be

mixing type faucets.

(C) At least one (1) window which can be easily opened or a mechanical device which will exchange air in the room at least six (6) times per hour.

(D) All openings to the outside from the building shall be effectively screened, and the doors shall be self-closing.

(E) All entrances to toilet and bathing facilities shall be screened to prevent a direct view of the interior from the exterior when the door is opened.

(F) Floors in handwashing and shower rooms shall have a smooth nonskid finish and be impervious to moisture. All floors shall slope to a properly trapped floor drain.

(G) Hot water heaters must have a capacity and recovery rate capable of supplying at least four (4) gallons of hot water per hour, per resident.

(H) Restrooms, laundry rooms, toilets, and privies shall contain adequate ceiling light fixtures to provide at least ten (10) foot-candles of illumination throughout the rooms.

(I) Restrooms shall have at least one (1) wall-type electrical convenience outlet, and all restroom outlets shall be protected by a ground fault circuit interrupter.

(6) Toilet facilities shall be located within two hundred (200) feet of each living unit.

(i) The following requirements pertain to bathing, laundry, and handwashing facilities:

(1) Bathing and handwashing facilities, supplied with hot and cold water under pressure, shall be provided for the use of all residents. These facilities shall be clean and sanitary and located within two hundred (200) feet of each living unit.

(2) There shall be a minimum of one (1) shower head per ten (10) residents. Shower heads shall be spaced at least three (3) feet apart with a minimum of nine (9) square feet of floor space per unit. Adequate, dry dressing space shall be provided in common use facilities. Shower floors shall be constructed of nonabsorbent, nonskid materials and sloped to properly constructed floor drains. Except in individual family units, separate shower facilities shall be provided each sex. When common use shower facilities for both sexes are in the same building, they shall be separated by a solid, nonabsorbent wall extending from the floor to ceiling or roof and shall be plainly designated "men" or "women" in English or in Spanish. International symbols may be used in lieu of English or Spanish designations.

(3) Lavatories or equivalent units shall be provided in a ratio of one (1) per fifteen (15) residents or fraction thereof.

(4) Laundry facilities, supplied with hot and cold water under pressure, shall be provided for the use of all residents. Laundry trays or tubs shall be provided in the ratio of one (1) per twenty-five (25) residents or fraction thereof. Mechanical washers may be provided in the ratio of one (1) per fifty (50) residents or fraction thereof, in lieu of laundry trays, although a minimum of one (1) laundry tray per one hundred (100) residents, or fraction thereof, shall be provided in addition to the mechanical washers.

(5) Camps in which all units are not provided with sinks must have common dishwashing facilities served by hot and cold water under pressure and discharging into existing approved camp sewage disposal systems. Such facilities must be provided in the ratio of one (1) for each twenty-five (25) residents or fraction thereof.

(j) The following requirements pertain to cooking and eating facilities:

(1) When residents are permitted or required to cook in their individual unit, a space shall be provided and equipped for cooking and eating. Such space shall be provided with:

(A) a cookstove or hot plate with a minimum of two (2) burners;

(B) adequate food storage shelves and a counter for food preparation;

(C) provisions for mechanical refrigeration of food at a temperature of not more than forty-five degrees Fahrenheit (45° F); and

(D) a table and chairs or equivalent seating and eating arrangements, all commensurate with the capacity of the unit.

(2) When residents or their families are permitted or required to cook and eat in a common facility, a room or building separate from the sleeping facilities shall be provided for cooking and eating. Such room or building shall be provided with:

(A) stoves or hot plates, with a minimum equivalent of two (2) burners, in a ratio of one (1) stove or hot plate to ten (10) persons, or one (1) stove or hot plate to two (2) families;

(B) a counter for food preparation;

(C) mechanical refrigeration for food at a temperature of not more than forty-five degrees Fahrenheit (45° F);

(D) tables and chairs or equivalent seating adequate for the intended use of the facility;

- (E) adequate sinks with hot and cold water under pressure;
  - (F) adequate lighting and ventilation; and
  - (G) floors of nonabsorbent, easily cleanable materials.
- (3) Camps providing a central dining or multifamily food service shall provide and maintain the kitchen and dining hall in accordance with the provisions of 410 IAC 7-24.
- (4) When central mess facilities are provided, the kitchen and mess hall shall be in proper proportion to the capacity of the housing and shall be separate from the sleeping quarters. The physical facilities, equipment, and operation shall be in accordance with provisions of applicable state codes.
- (5) Wall surface adjacent to all food preparation and cooking areas shall be of nonabsorbent, easily cleaned material. In addition, the wall surface adjacent to cooking areas shall be of fire-resistant material.
- (6) Work table, counter, and dining table surfaces shall be constructed of materials presenting a smooth, nonabsorbent, easily cleaned surface.

*(Indiana State Department of Health; Reg HSE 29R, Sec 3; filed Aug 29, 1972, 11:00 a.m.: Rules and Regs. 1973, p. 383; filed Sep 24, 1987, 3:00 p.m.: 11 IR 737; filed Sep 29, 1989, 2:02 p.m.: 13 IR 271; errata filed Jul 9, 1990, 2:00 p.m.: 13 IR 2004; filed Dec 4, 1991, 9:30 a.m.: 15 IR 489; errata, 15 IR 1027; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; errata filed Jul 29, 2003, 3:45 p.m.: 26 IR 3884; errata filed Jan 21, 2005, 10:32 a.m.: 28 IR 1695; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-9-4 Operation and sanitation; safety requirements**

Authority: IC 16-19-3-5

Affected: IC 16-19-3-4; IC 16-20-1-19

Sec. 4. (a) The following requirements pertain to garbage and other refuse:

- (1) Garbage and refuse shall be stored in watertight containers having a tight-fitting lid and shall be maintained in a sanitary condition and in good repair at all times. Covered washable containers of at least twenty (20) and no larger than thirty-five (35) gallon capacity shall be provided adjacent to each shelter and service building for the storage of refuse and garbage.
- (2) Garbage and refuse shall be collected at least two (2) times a week, or whenever the containers are full. After emptying, the cans shall be cleaned. Garbage and refuse shall not be burned.
- (3) Approved community dumpsters can be utilized in lieu of other garbage containers provided that:
  - (A) the dumpsters are of adequate size;
  - (B) the dumpsters have lids;
  - (C) dumpsters are located within two hundred (200) feet of all living quarters; and
  - (D) a garbage container of at least five (5) gallon capacity is provided inside all living quarters.
- (b) Insect and rodent control requires that housing and facilities shall be free of insects, rodents, and other vermin.
- (c) The following requirements pertain to sleeping facilities:
  - (1) Sleeping facilities shall be provided for each resident. Such facilities shall consist of comfortable beds, cots, or bunks provided with clean mattresses.
  - (2) Any bedding provided by the housing operator shall be clean and sanitary.
  - (3) Triple and quadruple deck bunks shall not be provided.
  - (4) Vertical separation between the top of the lower mattress of a double deck bunk and the upper bunk shall be a minimum of twenty-seven (27) inches. The vertical separation from the top of the upper mattress to the ceiling shall be a minimum of thirty-six (36) inches.
  - (5) Beds used for double occupancy may be provided only in family accommodations.
  - (6) Foam mattresses must be provided with clean mattress covers.
- (d) The following requirements pertain to fire, safety, and first aid:
  - (1) All buildings in which residents sleep or eat shall be constructed and maintained in accordance with applicable state or local fire and safety laws.
  - (2) One (1) story shelters for less than ten (10) residents shall have two (2) means of escape. One (1) of the two (2) required means of escape may be a readily accessible window with an openable space of not less than twenty-four (24) inches by

twenty-four (24) inches.

(3) All living quarters intended for use by ten (10) or more residents, central dining facilities, and common assembly rooms shall have at least two (2) doors remotely separated so as to provide alternate means of escape to the outside or to an interior hall.

(4) Living quarters and common assembly rooms on the second story shall have a stairway and a permanent, affixed exterior ladder or a second stairway.

(5) Living quarters and common assembly rooms located above the second story shall comply with the state and local fire and building codes relative to multiple story dwellings.

(6) A 4A60BC ten (10) pound or greater multipurpose dry chemical pressure fire extinguisher shall be provided in a readily accessible place located not more than one hundred (100) feet from each shelter. A minimum of one (1) such fire extinguisher for each ten (10) residents or fraction thereof must be provided.

(7) First-aid facilities shall be provided and readily accessible for use at all times. Such facilities shall be equivalent to the sixteen (16) unit first-aid kit recommended by the American Red Cross and shall be provided in a ratio of one (1) per fifty (50) residents or fraction thereof.

(8) No flammable or volatile liquids or materials shall be stored in or adjacent to rooms used for living purposes, except for those needed for current household use.

(9) Agricultural pesticides and toxic chemicals, excluding household products, shall not be stored within fifty (50) feet of any shelter.

(10) Telephone service shall be made reasonably available to all residents of the camp, either by providing a pay phone or a telephone in the crew leader's unit. The telephone number of the nearest fire department and ambulance service shall be prominently posted near the telephone.

(11) Each shelter shall be provided with at least one (1) ceiling-mounted smoke detector which shall be maintained in a working condition at the time of occupancy and repaired on request as needed.

(12) The camp owner shall provide a centrally located bulletin board where notices and permits can be displayed. Instructions in English and Spanish for reporting emergency situations shall be posted on this board.

(13) If workers are allowed to bring their own recreational vehicles to the camp, acceptable water, sewer, and electrical hook-ups must be provided for each such unit. Such recreational vehicles are exempt from the space and construction standards enumerated in section 3(d) through 3(g) of this rule.

(e) The following requirements pertain to operators' and residents' responsibilities:

(1) The camp operator is specifically responsible for the following:

- (A) Obtaining a current permit before workers arrive.
- (B) Ensuring that the camp area and sanitary facilities are kept clean and in good repair.
- (C) Routine upkeep and maintenance on shelters.
- (D) Keeping the grass mowed.

(2) Those persons residing in the agricultural labor camp are responsible for the following:

- (A) Keeping their shelters clean.
- (B) Cleaning their appliances and notifying the operator of any problems or breakdowns.
- (C) Providing their own bedding, such as sheets and blankets.
- (D) Leaving their camp and shelters clean and in good repair.
- (E) Keeping their pets on a leash or otherwise restrained and properly vaccinated.

*(Indiana State Department of Health; Reg HSE 29R, Sec 4; filed Aug 29, 1972, 11:00 a.m.: Rules and Regs. 1973, p. 388; filed Sep 29, 1989, 2:02 p.m.: 13 IR 276; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-9-5 Health or safety hazards; reporting communicable diseases**

Authority: IC 16-19-3-5

Affected: IC 16-19-3-4; IC 16-20-1-19

Sec. 5. (a) No conditions, situation, or installation shall be created, installed, or maintained which may cause or result in

a health or safety hazard or which may cause or transmit disease.

(b) The camp operator shall notify the local health officer immediately of any suspected communicable or contagious disease within the camp.

(c) A roster of all camp residents, and the number of the shelter to which they are assigned, must be maintained by the camp operator. This roster shall contain the first and last names of all adult residents and the total number of residents in each shelter. The roster must be kept up-to-date whenever the camp is occupied and shall be maintained by the operator for at least thirty (30) days after the camp is closed.

(d) Any structure located within fifty (50) feet of a shelter, which by its condition is an imminent threat to health or safety as determined by the board, must be razed, or removed, or repaired in such a manner that it is no longer a threat to health or safety. *(Indiana State Department of Health; Reg HSE 29R, Sec 5; filed Aug 29, 1972, 11:00 a.m.: Rules and Regs. 1973, p. 389; filed Sep 29, 1989, 2:02 p.m.: 13 IR 277; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

#### **410 IAC 6-9-5.5 Civil penalties schedule**

Authority: IC 16-19-3-4; IC 16-41-26-8

Affected: IC 4-21.5-3-8; IC 16-41-26

Sec. 5.5. (a) The board may commence an action under IC 13-1-9 *[IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.]* and IC 4-21.5-3-8 to levy civil penalties against an agricultural labor camp operator who:

(1) fails to comply with IC 13-1-9 *[IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.]* or this rule; or

(2) interferes with or obstructs the state board or its designated agent in the performance of duties pursuant to IC 13-1-9 *[IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.]*.

(b) A civil penalty in an amount in the appropriate range specified in this section may be assessed for each day of each violation.

(c) In determining the seriousness of the violation and the specific amount of the civil penalty to be sought for each violation, the state board shall consider the following:

(1) The potential for harm or imminent threat to public health.

(2) The extent of deviation from statutory or regulatory requirements.

(3) Degree of willfulness or negligence.

(4) History of noncompliance.

The absence of direct harm shall not result in assessment of a lower penalty for a violation.

(d) Unless adjusted as provided for in subsection (e), all penalties shall be in accordance with the following schedule:

| Violation                                                 |                 | Range of<br>Penalty |
|-----------------------------------------------------------|-----------------|---------------------|
| Construction notice; permit                               | 410 IAC 6-9-2   | \$50 to \$100       |
| Camp facilities                                           | 410 IAC 6-9-3   | \$50 to \$500       |
| Operation and sanitation: safety requirements             | 410 IAC 6-9-4   | \$50 to \$500       |
| Health or safety hazards; reporting communicable diseases | 410 IAC 6-9-5   | \$50 to \$500       |
| Interference with agent                                   | 410 IAC 6-9-5.5 | \$100 to \$500      |

(e) After determining the appropriate penalty based on the schedule in this section, the state board may adjust the penalty to reflect a good faith effort to comply by the operator of an agricultural labor camp.

(f) Each individual penalty shall be multiplied by the number of days the particular violation occurred. Penalties for violations occurring in two (2) consecutive inspections by the board shall be assessed on the basis that the violations have remained uncorrected over the period of time between the two (2) inspections.

(g) Penalties for all violations shall be totaled and sought under one (1) cause of action.

(h) After filing an action pursuant to IC 4-21.5, and in an attempt to resolve violations of IC 13-1-9 *[IC 13-1-9 was repealed by P.L.2-1993, SECTION 209, effective July 1, 1993. See IC 16-41-26.]* and this rule without resort to a hearing, the board may

negotiate and enter into agreed orders. An agreed order may suspend all or part of the civil penalty calculated under the requirements and deadlines established in the agreed order. (*Indiana State Department of Health; 410 IAC 6-9-5.5; filed Dec 4, 1991, 9:30 a.m.: 15 IR 493; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-9-6 Severability**

Authority: IC 16-19-3-5

Affected: IC 16-19-3-4; IC 16-20-1-19

Sec. 6. (Validity). If any section, paragraph, sentence, clause, phrase, or word of this regulation [410 IAC 6-9], or any other part thereof, be declared invalid for any reason, the remainder of said regulation [410 IAC 6-9] shall not be affected thereby and shall remain in full force and effect. (*Indiana State Department of Health; Reg HSE 29R, Sec. 6; filed Aug 29, 1972, 11:00 am: Rules and Regs. 1973, p. 389; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**Rule 10. Commercial On-Site Wastewater Disposal (Repealed)**

(*Repealed by Indiana State Department of Health; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**Rule 10.1. Commercial On-Site Sewage Systems**

**410 IAC 6-10.1-1 Definitions**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 1. The definitions in this rule apply throughout this rule. (*Indiana State Department of Health; 410 IAC 6-10.1-1; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-2 "AASHTO" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 2. "AASHTO" means the American Association of State Highway and Transportation Officials. (*Indiana State Department of Health; 410 IAC 6-10.1-2; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-3 "ABS" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 3. "ABS" means acrylonitrile-butadiene-styrene. (*Indiana State Department of Health; 410 IAC 6-10.1-3; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-4 "ANSI" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 4. "ANSI" means the American National Standards Institute. (*Indiana State Department of Health; 410 IAC 6-10.1-4; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-5 "ASTM" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 5. "ASTM" means the American Society for Testing and Materials. (*Indiana State Department of Health; 410 IAC 6-10.1-5; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-6 "Cluster system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 6. "Cluster system" means an on-site sewage system designed to serve two (2) or more sewage-generating dwellings or facilities with multiple owners. Typically, the term includes a comprehensive, sequential land-use planning component and private ownership. (*Indiana State Department of Health; 410 IAC 6-10.1-6; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-7 "Commissioner" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 7. "Commissioner" means the commissioner of the department or his or her legally authorized representative. (*Indiana State Department of Health; 410 IAC 6-10.1-7; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 8. "Commercial on-site sewage system" or "on-site sewage system" means all equipment and devices necessary for proper conduction, collection, storage, treatment, and on-site disposal of sewage from other than one-family or two-family dwellings, except where such dwellings are connected to a cluster system. However, an on-site sewage system serving two (2) single-family dwellings on the same property, with a combined DDF of less than or equal to seven hundred fifty (750) gallons per day, is a residential on-site sewage system, not a commercial on-site sewage system. Included within, but not limited to, the scope of this definition are building sewers, grease traps, septic tanks, dosing tanks, absorption fields, perimeter drains, vault privies, and temporary sewage holding tanks serving such facilities as the following:

- (1) Apartment buildings.
- (2) Campgrounds.
- (3) Churches.
- (4) Commercial establishments.
- (5) Condominiums.
- (6) Medical facilities.
- (7) Mobile home parks.
- (8) Motels.
- (9) Office buildings.
- (10) Restaurants.
- (11) Schools.

(*Indiana State Department of Health; 410 IAC 6-10.1-8; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

- (1) The on-site sewage system refuses to accept sewage at the rate of design application thereby interfering with the normal use of commercial plumbing fixtures.
- (2) Effluent discharge exceeds the absorptive capacity of the soil, resulting in ponding, seepage, or other discharge of the effluent to the ground surface or to surface waters.
- (3) Effluent is discharged from the on-site sewage system causing contamination of a potable water supply, ground water, or surface waters.

A failed commercial on-site sewage system is a health hazard. (*Indiana State Department of Health; 410 IAC 6-10.1-9; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-10 "Construction permit" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 10. "Construction permit" means written approval by the department for the installation, repair, or replacement of a commercial on-site sewage system. (*Indiana State Department of Health; 410 IAC 6-10.1-10; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-11 "Densic material" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 11. "Densic material" means relatively unaltered materials (do not meet requirements for any other named diagnostic horizons nor any other diagnostic soil characteristic) that have a noncemented rupture resistance class. The bulk density or the organization is such that roots cannot enter, except in cracks. These are mostly earthy materials, such as till, volcanic mudflows, and some mechanically compacted materials. Some noncemented rock can be densic materials if they are dense or resistant enough to keep roots from entering, except in cracks. Densic materials are noncemented and thus differ from paralithic materials and the material below a lithic contact, both of which are cemented. Densic materials have, at their upper boundary, a densic contact if they have no cracks or if the spacing of cracks that roots can enter is ten (10) centimeters (cm) or more. These materials can be used to differentiate soil series if the materials are within the series control section. (*Indiana State Department of Health; 410 IAC 6-10.1-11; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-12 "Department" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 12. "Department" means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-10.1-12; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-13 "Design daily flow" or "DDF" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 13. "Design daily flow" or "DDF" means the calculated peak daily sewage flow from a commercial facility used to design a commercial on-site sewage system. (*Indiana State Department of Health; 410 IAC 6-10.1-13; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-14 "Distribution box" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 14. "Distribution box" means a structure designed to distribute effluent by gravity from a septic tank equally into the trenches of the soil absorption system connected thereto. *(Indiana State Department of Health; 410 IAC 6-10.1-14; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-15 "Drainageway" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 15. "Drainageway" means the channel portion of the landscape in which surface water or rainwater runoff gathers intermittently to flow to a lower elevation. *(Indiana State Department of Health; 410 IAC 6-10.1-15; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-16 "Dwelling" or "residence" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 16. "Dwelling" or "residence" means any house or place used or intended to be used as a place of seasonal or permanent human habitation or for sleeping for one (1) or two (2) families, and any associated outbuildings that are for the private use of the owner. *(Indiana State Department of Health; 410 IAC 6-10.1-16; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-17 "Fill" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 17. "Fill" means soil transported and deposited by man, as well as soil recently transported and deposited by natural erosion forces. Fill is evidenced by one (1) or more of the following:

- (1) No soil horizons or indistinct soil horizons.
- (2) Depositional stratification.
- (3) Presence of a soil horizon that has been covered.
- (4) Materials in a horizon such as cinders or construction debris.
- (5) Position in the landscape.

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

**410 IAC 6-10.1-18 "Grease trap" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 18. "Grease trap" means a tank designed to intercept, congeal, and retain or remove fats, oils, and grease (FOGs) from sewage. *(Indiana State Department of Health; 410 IAC 6-10.1-18; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 19. "Health officer" means the health officer of a local board of health. *(Indiana State Department of Health; 410 IAC*

6-10.1-19; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

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

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

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

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

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

(Indiana State Department of Health; 410 IAC 6-10.1-20; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-21 "INDOT" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 21. "INDOT" means the Indiana department of transportation. (Indiana State Department of Health; 410 IAC 6-10.1-21; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-22 "Interceptor drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 22. "Interceptor drain" means a subsurface drainage system constructed only on the upslope side or sides of a soil absorption system for the purpose of diverting subsurface water around the soil absorption system site. (Indiana State Department of Health; 410 IAC 6-10.1-22; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-23 "Local health department" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-20

Sec. 23. "Local health department" means a local health department created pursuant to IC 16-20, or its duly authorized representative. (Indiana State Department of Health; 410 IAC 6-10.1-23; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-24 "NEMA" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 24. "NEMA" means the National Electrical Manufacturers Association. (Indiana State Department of Health; 410 IAC 6-10.1-24; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-25 "NRCS" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 25. "NRCS" means the United States Department of Agriculture, Natural Resources Conservation Service. *(Indiana State Department of Health; 410 IAC 6-10.1-25; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-26 "NSF" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 26. "NSF" means the National Sanitation Foundation International. *(Indiana State Department of Health; 410 IAC 6-10.1-26; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 27. "Operating permit" means written approval by the department for the continued use and maintenance of a commercial on-site sewage system. *(Indiana State Department of Health; 410 IAC 6-10.1-27; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-28 "Owner" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 28. "Owner" means the owner of a commercial facility or dwelling or his or her agent. *(Indiana State Department of Health; 410 IAC 6-10.1-28; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 29. "Perimeter drain" means a subsurface drainage system that completely surrounds a soil absorption system for the purpose of lowering a seasonal high water table or preventing movement of subsurface water into a soil absorption system site. *(Indiana State Department of Health; 410 IAC 6-10.1-29; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-30 "Person" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 30. "Person" means any:

- (1) individual;
- (2) partnership;
- (3) copartnership;
- (4) firm;
- (5) company;
- (6) corporation;
- (7) association;

- (8) trust;
- (9) estate; or
- (10) other legal entity, its or their successors, assigns, or agents.

*(Indiana State Department of Health; 410 IAC 6-10.1-30; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-31 "PVC" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 31. "PVC" means polyvinyl chloride. *(Indiana State Department of Health; 410 IAC 6-10.1-31; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

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

**410 IAC 6-10.1-33 "Sanitary sewerage system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 33. "Sanitary sewerage system" means a sewer or a system of sewers that conveys sewage away from the property on which it originates to a wastewater treatment facility owned and operated by:

- (1) an incorporated city or town;
- (2) a conservancy district;
- (3) a regional sewer district; or
- (4) a private utility.

*(Indiana State Department of Health; 410 IAC 6-10.1-33; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-34 "SDR" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 34. "SDR" means standard dimension ratio. *(Indiana State Department of Health; 410 IAC 6-10.1-34; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-35 "Seasonal high water table" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5  
Affected: IC 16-19-3-4

Sec. 35. "Seasonal high water table" means the upper limit of soil saturated with water for periods long enough for anaerobic conditions to affect soil color. *(Indiana State Department of Health; 410 IAC 6-10.1-35; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-36 "Segment drain" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 36. "Segment drain" means a subsurface drainage system constructed between two (2) soil absorption fields in the same on-site sewage system for the purpose of intercepting and diverting subsurface water away from the downslope soil absorption field. *(Indiana State Department of Health; 410 IAC 6-10.1-36; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-37 "Septic tank" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 37. "Septic tank" means a watertight structure into which sewage is discharged for settling and solids digestion. *(Indiana State Department of Health; 410 IAC 6-10.1-37; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-38 "Sewage" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 38. "Sewage" means all water-carried waste derived from ordinary living processes. *(Indiana State Department of Health; 410 IAC 6-10.1-38; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-39 "Soil absorption" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 39. "Soil absorption" means a process that utilizes the soil to treat and disperse effluent from a septic tank. *(Indiana State Department of Health; 410 IAC 6-10.1-39; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

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

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

Authority: IC 16-19-3-4; IC 16-19-3-5

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;
- (3) texture;
- (4) consistence;
- (5) kinds and numbers of organisms present; and
- (6) degree of acidity or alkalinity.

*(Indiana State Department of Health; 410 IAC 6-10.1-41; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 42. "Soil loading rate" means the allowable rate of application of septic tank effluent to the soil. It is expressed in gallons per day per square foot. *(Indiana State Department of Health; 410 IAC 6-10.1-42; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-43 "Soil profile analysis" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 43. "Soil profile analysis" means the observation and evaluation of the physical characteristics of the soil horizons or layers to:

(1) a depth of at least five (5) feet; or

(2) if shallower, a layer that cannot be readily penetrated.

*(Indiana State Department of Health; 410 IAC 6-10.1-43; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-44 "Soil scientist" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4; IC 25-31.5

Sec. 44. "Soil scientist" means an individual registered as a professional soil scientist with the Indiana Registry of Soil Scientists (IRSS) as provided for under IC 25-31.5. *(Indiana State Department of Health; 410 IAC 6-10.1-44; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-45 "Start of construction" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 45. "Start of construction" means, but is not limited to, any site activity undertaken for the erection of a structure to be served by a commercial on-site sewage system. *(Indiana State Department of Health; 410 IAC 6-10.1-45; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-46 "Subsurface drainage system" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

(1) effectively lower a seasonal high water table; or

(2) prevent movement of subsurface water into a soil absorption system site.

Interceptor drains, perimeter drains, and segment drains are types of subsurface drainage systems. *(Indiana State Department of Health; 410 IAC 6-10.1-46; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-47 "Technology new to Indiana" or "TNI" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 47. "Technology new to Indiana" or "TNI" means on-site sewage treatment or disposal methods, processes, or equipment not described in this rule that have been approved by the department in accordance with section 49(h) of this rule. (*Indiana State Department of Health; 410 IAC 6-10.1-47; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

- (1) Inspection.
- (2) Observation.
- (3) Measurement.
- (4) Sampling.
- (5) Testing.

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

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

(*Indiana State Department of Health; 410 IAC 6-10.1-48; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-49 General sewage disposal requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

(d) Any commercial facility that is not connected, or cannot be connected, to a sanitary sewerage system shall be provided

with a commercial on-site sewage system that includes a septic tank and a soil absorption system that has not failed.

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

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

(f) No portion of the commercial on-site sewage system or its associated drainage system shall be constructed upon property other than that from which the sewage originates unless easements, which grant permission for such construction and access for system maintenance, have been obtained for that property and have been legally approved and recorded by the proper authority or commission.

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

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

Neither shall they be used for the disposal of chemical wastes in quantities that would pollute ground water or inhibit solids settling or digestion in the septic tank.

(h) In order to encourage development of new or more efficient treatment or disposal processes, the department may issue construction permits for experimental and TNI commercial on-site sewage systems. Construction permits may be issued for installations, treatment, or disposal equipment, processes, or techniques for which extensive experience or records of use have not been developed in Indiana. However, the applicant must submit evidence of sufficient clarity and conclusiveness to convince the department that the proposal has a reasonable and substantial probability of satisfactory operation without causing a health hazard, nuisance, surface water pollution, or ground water pollution. The department may also require the applicant to satisfactorily document how and by whom the experimental facilities and any other portions of the commercial on-site sewage system, which could be damaged due to a failure of the experimental installation, are to be replaced if it becomes necessary. (*Indiana State Department of Health; 410 IAC 6-10.1-49; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-50 Construction permit requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

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

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

- (1) start of construction of a commercial facility;
  - (2) start of construction of a regulated facility;
  - (3) reconstruction of any commercial or regulated facility;
  - (4) addition to, alteration of, replacement, or repair of an existing commercial on-site sewage system;
  - (5) installation of an on-site sewage system for an existing commercial facility that did not previously have an on-site sewage system as defined in section 8 of this rule;
  - (6) expansion of a commercial or regulated facility that may increase the design daily flow;
  - (7) change of use of a commercial or regulated facility;
  - (8) change in operations that would increase the design daily flow; or
  - (9) change of operations that would result in the increase of the BOD<sub>5</sub>, TSS, or FOGs of the sewage.
- (b) Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of a commercial

on-site sewage system, provided that the permit required by local ordinance is:

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

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

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

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

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

*(Indiana State Department of Health; 410 IAC 6-10.1-50; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-51 Application for construction permit**

Authority: IC 16-19-3-4; IC 16-19-3-5

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

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

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

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

(3) One (1) set of detailed construction plans and specifications certified and sealed by a professional engineer or architect currently registered in Indiana, said plans drawn to scale and having sufficient clarity to be reproduced to create legible microfilm. As provided in IC 25-21.5-1-7(b), registered land surveyors may only certify and seal plans for gravity sanitary sewers, storm sewers, and tile drains.

(4) A map or other documentation showing the location of the property involved.

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

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

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

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

(A) sewage will be collected from the holding tank and disposed of, in compliance with IC 13-18-12;

(B) temporary sewage holding tank will be abandoned and a sewer connection will be made to another type of commercial on-site sewage system, or to a municipal or private utility sewer, or to a regional sewer district or conservancy district sewer, within two (2) years from the date of permit issuance; and

(C) holding tank has at least a three (3) day holding capacity at the ninety-five percent (95%) level, and will be equipped with an audio-visual alarm set to activate at the ninety-five percent (95%) level.

(9) Sewage characteristics and calculations used to estimate sewage flow on the peak day, in gallons, to be disposed of through each proposed commercial on-site sewage system. If more than one (1) type of facility is to be connected to a proposed commercial on-site sewage system, sewage characteristics and calculations used to estimate sewage flow, in gallons, from each facility on its peak day must be submitted.

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

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

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

(b) Requests for additional substantiating information made under subsection (a)(12) shall be addressed to the registered engineer or architect who certified and sealed the construction plans and specifications required by subsection (a)(3). (*Indiana State Department of Health; 410 IAC 6-10.1-51; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-52 Standards for issuance**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 52. The department may reject an application for permit to construct a commercial on-site sewage system for failure by the applicant to submit any of the following:

(1) All documentation required by section 51(a) of this rule.

(2) Evidence to fully justify the estimated sewage flows and sewage characteristics used as the basis of design for the commercial on-site sewage system.

(3) Evidence that the commercial on-site sewage system can be constructed, modified or installed, and operated in such a manner that it will not violate any sanitation, health, siting, or pollution control rules or ordinances existing at the time of application.

(4) Evidence that the commercial on-site sewage system conforms to applicable design criteria contained in this rule, standards of the department, or such other criteria acceptable to the department that can reasonably be expected to result in a commercial on-site sewage system that will consistently treat and dispose of all sewage received for the life of the facilities it serves, without causing a health hazard, nuisance, surface water pollution, or ground water pollution.

(*Indiana State Department of Health; 410 IAC 6-10.1-52; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-53 Construction permit conditions**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

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

alterations, or additions.

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

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

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

(b) No construction on the commercial on-site sewage system may take place if the commercial on-site sewage system site is disturbed or altered after the on-site evaluation by the addition of fill material (other than construction necessary for the commercial on-site sewage system) or by cutting, scraping, compaction, or the removal of soil, until a new on-site evaluation has been conducted and a modified construction permit has been issued. (*Indiana State Department of Health; 410 IAC 6-10.1-53; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-54 Operating permits**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 54. (a) The department may require written operating permits as follows:

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

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

(A) At least once every three (3) years for on-site sewage systems having components, other than a septic tank, requiring scheduled inspection and maintenance.

(B) At least once every five (5) years for all other on-site sewage systems.

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

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

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

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

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

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

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

(e) The operating permit for a commercial on-site sewage system in violation of subsection (d) may be revoked by the department in accordance with section 56 of this rule.

(f) Nothing in this rule shall be construed as preventing requirements in local ordinance for the issuance of an operating permit for a commercial on-site sewage system, provided that the permit required by local ordinance is not in conflict with an operating permit issued by the department. (*Indiana State Department of Health; 410 IAC 6-10.1-54; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-55 Denial of an application for a construction or operating permit**

Authority: IC 16-19-3-4; IC 16-19-3-5

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

Sec. 55. An application for a commercial on-site sewage system construction or operating permit may be denied by the department for any of the following causes:

(1) The commercial on-site sewage system design does not meet the minimum requirements of this rule.

(2) Failure to disclose all the facts relevant to the construction and use of the proposed commercial on-site sewage system or any misrepresentation made in the application.

(3) Failure of the owner, or the engineer or architect who certified and sealed the construction plans and specifications, to respond to a request for revised plans and specifications or additional information made under section 51 of this rule, within six (6) months of receiving the request.

(4) Any change relating to the design, construction, or use of the on-site sewage system not approved, in writing, by the department.

(5) A sanitary sewerage system of adequate capacity served by a sewage treatment facility owned by an incorporated city or town, conservancy district established under IC 14-33, regional sewer district established under IC 13-26, or private utility, is located within three hundred (300) feet of the property line of the affected property, or is available for connection at a construction cost and connection fee estimated by the department not to exceed one hundred fifty percent (150%) of the cost estimated by the department for installing commercial on-site sewage systems to serve the project were the commercial on-site sewage systems otherwise acceptable to the department.

(6) Failure to show that the commercial on-site sewage system can be constructed, operated, maintained, or abandoned in compliance with this rule.

*(Indiana State Department of Health; 410 IAC 6-10.1-55; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

(3) Failure to disclose all facts relevant to construction, operation, and use of the commercial on-site sewage system in a manner that it can consistently treat and dispose of all sewage received for the life of the facilities it serves, without causing a health hazard, nuisance, surface water pollution or ground water pollution.

(4) Any misrepresentation made to obtain the construction or operating permit.

(5) Any change relating to the design, construction, or use of the on-site sewage system not approved, in writing, by the department.

(6) Any other change, situation, or activity relating to use of the commercial on-site sewage system that, in the judgment of the department, is not consistent with the purposes of this rule.

*(Indiana State Department of Health; 410 IAC 6-10.1-56; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-57 Petitions for appeal**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 4-21.5; IC 16-19-3-4

Sec. 57. (a) Any notice of an issued permit, permit modification, notice of permit denial, or notice of permit revocation shall include the following:

(1) The basis for the issuance, modification, denial, or revocation.

(2) The method or methods available for compliance, if applicable.

(3) The time frame for compliance, if applicable.

(4) That the owner has the right to appeal.

(5) The procedure for registering any such appeal, under the provisions set forth in IC 4-21.5, the Administrative Orders and Procedures Act.

(b) Within fifteen (15) days following the date of receipt of an issued permit, permit modification, notice of permit denial, or notice of permit revocation, any person aggrieved by the action may file a petition for appeal concerning the action with the

department. A petition for appeal shall:

- (1) state the name and address of the person making the request;
- (2) identify the interest of the petitioner that is affected by the permit issuance, denial, modification, or revocation;
- (3) identify any persons whom the petitioner represents;
- (4) state with particularity the reasons for the request;
- (5) state with particularity the issues proposed to be considered; and
- (6) include proposed terms or conditions that, in the judgment of the petitioner, would be appropriate to carry out the requirements of law and this rule governing the permits.

*(Indiana State Department of Health; 410 IAC 6-10.1-57; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-58 Violations**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 58. (a) Should a commercial on-site sewage system fail, the failure shall be corrected by the owner within the time limit set by the department or the local health officer in whose jurisdiction the facility is located.

(b) If any component of a commercial on-site sewage system is found to be:

- (1) defective;
- (2) malfunctioning; or
- (3) in need of service;

the department or the local health officer in whose jurisdiction the facility is located may require the repair, replacement, or service of that component. The repair, replacement, or service shall be conducted within the time limit set by the department or the local health officer in whose jurisdiction the facility is located.

(c) Any person found to be violating this rule may be served by the department or the local health officer in whose jurisdiction the facility is located with a written order stating the nature of the violation and providing a time limit for satisfactory correction thereof.

(d) After receiving an order in writing from the department or the local health officer in whose jurisdiction the facility is located, the owner of the property shall comply with the provisions of this rule as set forth in the order and within the time limit specified therein. The order shall be served on the owner or the agent of the owner, but may be served on any person who, by contract with the owner, has assumed the duty of complying with the provisions of an order. *(Indiana State Department of Health; 410 IAC 6-10.1-58; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-59 Construction and operating permit; transferability**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 59. A commercial on-site sewage system construction or operating permit may only be transferred to another person by the current permit holder if the:

- (1) current permit holder notifies the department and the local health department having jurisdiction, in writing, of the proposed transfer at least thirty (30) days before the transfer is proposed to occur;
- (2) person to whom the permit is proposed to be transferred certifies to the department, in writing, at least thirty (30) days before the transfer is proposed to occur, any changes proposed in the occupancy or use of a facility to be served by the commercial on-site sewage system for which the subject construction permit was issued; and
- (3) department provides written approval of the transfer.

*(Indiana State Department of Health; 410 IAC 6-10.1-59; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-60 Sewage flows**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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Sec. 60. (a) Sewage flows for commercial on-site sewage systems shall be determined from Table I as follows:

| Table I - Estimated Sewage Flows             |                                                                                     |
|----------------------------------------------|-------------------------------------------------------------------------------------|
| Type of Establishment                        | Design Daily Flow (gpd)                                                             |
| Agricultural Labor Camp                      | 50 per occupant                                                                     |
| Airport <sup>1</sup>                         | 3 per passenger<br>20 per employee                                                  |
| Apartment/Condominium                        | 200 per one-bedroom<br>300 per two-bedroom<br>350 per three-bedroom                 |
| Assembly Hall <sup>1</sup>                   | 3 per seat                                                                          |
| Athletic Field <sup>1</sup>                  | 1 per participant and spectator                                                     |
| Auction and Flea Market <sup>1</sup>         | 3 per customer                                                                      |
| Banquet Caterer <sup>1</sup>                 | 5 per person + 100 for dishwashing                                                  |
| Beauty Salon                                 |                                                                                     |
| a) Perm or color changes                     | 35 per customer                                                                     |
| b) Stylist                                   | 20 per stylist                                                                      |
| c) Cut with wash                             | 10 per customer                                                                     |
| d) Cut without wash                          | 5 per customer                                                                      |
| Bed and Breakfast                            | 150 per bedroom                                                                     |
| Bowling Alley                                |                                                                                     |
| a) With bar or food, or both                 | 125 per lane                                                                        |
| b) Without food service                      | 75 per lane                                                                         |
| Bus Station <sup>1</sup>                     | 3 per passenger                                                                     |
| Campground                                   |                                                                                     |
| a) Day camp                                  | 20 per camper + 20 per staff                                                        |
| b) RV, with sewer hookup                     | 50 per campsite                                                                     |
| c) RV, without sewer hookup                  | 50 per campsite                                                                     |
| d) RV dump station                           | Included above, or 20 per campsite if on separate system                            |
| e) Youth camp                                | 40 per camper + 40 per staff                                                        |
| f) Cabins within campgrounds                 |                                                                                     |
| 1) without restroom                          | 50 per cabin                                                                        |
| 2) with restroom                             | 75 per cabin per bedroom                                                            |
| 3) with restroom and kitchen                 | 100 per cabin per bedroom                                                           |
| Church                                       |                                                                                     |
| a) With full kitchen                         | 5 per sanctuary seat                                                                |
| b) With warming kitchen                      | 4 per sanctuary seat                                                                |
| c) Without kitchen                           | 3 per sanctuary seat                                                                |
| Coffee Shop <sup>1</sup>                     | 6 per customer + 20 per employee                                                    |
| Conference Center/Meeting Rooms <sup>1</sup> | 20 per attendee                                                                     |
| Correctional Facilities                      | 120 per inmate + 20 per employee                                                    |
| Day Care Centers                             | 20 per child + 20 per employee                                                      |
| Dentist's Office                             | 5 per patient<br>75 per dentist<br>75 per dental technician<br>20 per support staff |
| Department Store <sup>1</sup>                | 0.1 per square foot                                                                 |
| Banquet Hall                                 |                                                                                     |
| a) with food preparation                     | 10 per seat                                                                         |
| b) without food preparation                  | 5 per seat                                                                          |

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|                                               |                                                                                 |
|-----------------------------------------------|---------------------------------------------------------------------------------|
| Doctor's Office                               | 75 per doctor<br>75 per nurse<br>20 per support staff                           |
| Dormitory/Residence Hall                      | 100 per person                                                                  |
| Factory <sup>1</sup>                          |                                                                                 |
| a) With showers                               | 35 per employee                                                                 |
| b) Without showers                            | 20 per employee                                                                 |
| Fairground <sup>1</sup>                       | 3 per visitor                                                                   |
| Emergency Station                             |                                                                                 |
| a) Manned with firefighters                   | 75 per firefighter                                                              |
| b) Unmanned with firefighters                 | 20 per firefighter                                                              |
| c) EMT station                                | 35 per EMT                                                                      |
| Food Service Operations                       |                                                                                 |
| a) Fast food restaurant                       | 50 per seat                                                                     |
| b) Restaurant (not 24-hour)                   | 35 per seat                                                                     |
| c) Restaurant (24-hour)                       | 50 per seat                                                                     |
| d) Restaurant (not 24-hour), along interstate | 50 per seat                                                                     |
| e) Restaurant (24-hour), along interstate     | 70 per seat                                                                     |
| f) Tavern/bar/cocktail lounge                 | 35 per seat                                                                     |
| Golf Course/Mini Golf <sup>1</sup>            |                                                                                 |
| a) Comfort station (mid-course)               | 1.5 times max number of golfers                                                 |
| b) Restroom (main clubhouse)                  | 5 times max number of golfers                                                   |
| Hotels <sup>1</sup>                           | 100 per room                                                                    |
| Kennels and Vet Clinics                       |                                                                                 |
| a) Cages                                      | 5 per cage                                                                      |
| b) Inside runs                                | 10 per run                                                                      |
| c) Outside runs                               | 20 per run                                                                      |
| d) Grooming                                   | 10 per animal                                                                   |
| e) Surgery                                    | 25 per surgery room                                                             |
| f) Staff                                      | 75 per veterinary doctor<br>75 per veterinary assistant<br>20 per support staff |
| Mobile Home Park                              | 200 per lot                                                                     |
| Motel <sup>1</sup>                            | 100 per room                                                                    |
| Nursing Home                                  | 100 per bed + 20 per employee                                                   |
| Office Building <sup>1</sup>                  |                                                                                 |
| a) Without showers                            | 20 per employee                                                                 |
| b) With showers                               | 35 per employee                                                                 |
| Picnic Area                                   | 5 per visitor                                                                   |
| Race Tracks <sup>1</sup>                      |                                                                                 |
| a) Attendee                                   | 5 per attendee                                                                  |
| b) Staff                                      | 20 per staff                                                                    |
| Residential Cluster (5 House Min.)            | 120 per bedroom                                                                 |
| School                                        |                                                                                 |
| a) Elementary                                 | 15 per student                                                                  |
| b) Secondary                                  | 25 per student                                                                  |
| c) Amish                                      | 10 per student + 10 per staff                                                   |
| d) Boarding                                   | 75 per person<br>150 per bedroom                                                |

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|                                                                                                                                                                                           |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Convenience Store/Service Station/Gas Station <sup>1</sup>                                                                                                                                |                  |
| a) Truck stop                                                                                                                                                                             | 1,000            |
| with showers                                                                                                                                                                              | 30 per trucker   |
| b) Small convenience store/service center/gas station                                                                                                                                     | 1,000            |
| with fast food service                                                                                                                                                                    | 10 per seat      |
| Single-family dwelling or duplex not on cluster system                                                                                                                                    | 150 per bedroom  |
| Swimming Pool Bathhouse                                                                                                                                                                   | 10 per swimmer   |
| Theater <sup>1</sup>                                                                                                                                                                      |                  |
| a) Drive-in                                                                                                                                                                               | 10 per car space |
| b) Inside building                                                                                                                                                                        | 5 per seat       |
| Visitor Center                                                                                                                                                                            | 5 per visitor    |
| <sup>1</sup> These estimated flows do not include food service. If food service is provided, additional flows must be assigned, based on the type of food service and hours of operation. |                  |

(b) For establishments not listed in Table I, contact the Division of Environmental Public Health of the department for assistance with determining flows.

(c) Designs for flows less than estimated from Table I may be considered based on substantial evidence (such as water meter readings) that lower flows will occur. Flow data from similar installations of equal capacity and similar surroundings may be considered on an individual basis. (*Indiana State Department of Health; 410 IAC 6-10.1-60; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### 410 IAC 6-10.1-61 Minimum separation distances

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 61. (a) All septic tanks, dosing tanks, lift stations, 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 | Soil Absorption System |
| Private water supply well <sup>1,2</sup>                                                                                                                                                                                                                                                                                                                                                                                                     | 100                                                              | 100                    |
| Private geothermal well <sup>1,2</sup>                                                                                                                                                                                                                                                                                                                                                                                                       | 100                                                              | 100                    |
| Commercial water supply well <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                    | 100                                                              | 100                    |
| Commercial geothermal well <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                                                                      | 100                                                              | 100                    |
| Public water supply well, lake, <sup>1,3</sup> or reservoir <sup>1,3</sup>                                                                                                                                                                                                                                                                                                                                                                   | 200                                                              | 200                    |
| Other pond, retention pond, lake, or reservoir <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                  | 50                                                               | 50                     |
| Storm water detention area <sup>3,4</sup>                                                                                                                                                                                                                                                                                                                                                                                                    | 25                                                               | 25                     |
| River, stream, ditch, or drainage tile <sup>5</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>6</sup>                                                  | 10 <sup>7</sup>        |
| Front, side, or rear lot lines                                                                                                                                                                                                                                                                                                                                                                                                               | 5                                                                | 5                      |
| Water lines continually under pressure                                                                                                                                                                                                                                                                                                                                                                                                       | 10                                                               | 10                     |
| Suction water lines                                                                                                                                                                                                                                                                                                                                                                                                                          | 50                                                               | 50                     |
| <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)(8) 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> 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>5</sup> See section 63(f) of this rule for subsurface drainage system separation.                                                                                                  |
| <sup>6</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>7</sup> A minimum separation of ten (10) feet is required on all sites.                                                                                                            |

(b) 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, 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.

(c) 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 shall be used. The piping shall not be constructed closer than seventy (70) feet to water sources.

(d) 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 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 State Department of Health; 410 IAC 6-10.1-61; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-62 Dispersal area**

Authority: IC 16-19-3-4; IC 16-19-3-5

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) bedrock;

(B) densic material;

(C) dense till;

(D) soil with fragic soil properties; or

(E) layers transitional to dense till (horizons in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution), unless:

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

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

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

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

(A) outer trench parallel to the length of the trench; or

(B) INDOT Specification 23 sand and parallel to the long axis of the elevated sand mound.

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

(A) downslope trench parallel to the length of the trench; or

(B) INDOT Specification 23 sand downslope and parallel to the long axis of the elevated sand mound.

(c) For sites that do not meet the conditions of subsection (a), the minimum dispersal area shall be ten (10) feet. For sites that meet the conditions of subsection (a), the dispersal area shall be as indicated in Table III, as follows:

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

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

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

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

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

(A) buildings;

(B) foundations;

(C) slabs;

(D) garages;

(E) patios;

(F) barns;

(G) aboveground and belowground swimming pools;

(H) retaining walls;

(I) roads;

(J) driveways;

(K) parking areas;

(L) paved sidewalks;

(M) closed loop geothermal systems; or

(N) other structures.

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

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

*(Indiana State Department of Health; 410 IAC 6-10.1-62; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-63 Drainage**

Authority: IC 16-19-3-4; IC 16-19-3-5

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.

(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 the trench lengths along the contour of the site for a subsurface trench system or parallel to the long axis of an elevated sand mound must be less than or equal to sixty-five (65) feet, 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 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 State Department of Health; 410 IAC 6-10.1-63; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-64 On-site evaluation**

Authority: IC 16-19-3-4; IC 16-19-3-5

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 alteration of a soil absorption system, an on-site evaluation, which shall include a description of the soil profile, shall be conducted.

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

(c) Soil profile information shall be recorded:

- (1) to a depth of five (5) feet; or
- (2) until a layer is encountered that cannot be readily penetrated;

whichever is shallower.

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

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

- (1) For topographic information, the following:

- (A) The slope and slope aspect.
- (B) Surface drainage characteristics and patterns including swales, ditches, and streams.
- (C) The proposed or existing location of house and well or other water supply.
- (D) The location of other major features or structures.
- (E) The location of soil evaluation sites and appropriate soil type boundaries.
- (F) The topographic position of the site.
- (2) For soil characteristics, the following:
  - (A) Parent material.
  - (B) The approximate depths of soil horizons.
  - (C) The soil color, structure, and texture at each horizon.
  - (D) The horizon designation for each horizon.
  - (E) The depth to any layer that has a soil loading rate greater than seventy-five hundredths (0.75) gallons per day per square foot or less than twenty-five hundredths (0.25) gallons per day per square foot.
  - (F) The depth to seasonal high ground water as indicated by soil wetness characteristics.
  - (G) The depth to bedrock.
  - (H) The soil consistence at each horizon.
  - (I) The soil effervescence at each horizon.
  - (J) The percent coarse fragments at each horizon.
  - (K) The percent clay at each horizon, by field estimation, for any horizon where the percent coarse fragments is greater than thirty-five percent (35%) by volume.
  - (L) The presence or absence of roots.
  - (M) Frost penetration depth, if applicable.

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

- (1) The information required in subsection (e)(2).
- (2) Particle size family.

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

#### **410 IAC 6-10.1-65 Construction of sewers**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

| Table IV – Minimum Slope for Sewers   |                                     |
|---------------------------------------|-------------------------------------|
| Sewer Size                            | Minimum Slope in Feet per 100 Feet* |
| 4 inch diameter (building sewer only) | 1.33                                |
| 6 inch diameter                       | 0.61                                |
| 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                                |

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|                                                     |      |
|-----------------------------------------------------|------|
| 24 inch diameter                                    | 0.08 |
| *Based on the Hazen-Williams formula using C = 140. |      |

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

(e) Adequate sewer bedding shall be provided. All sewers shall be buried with at least two (2) feet of cover to protect them from freezing. Force mains must be buried deep enough to prevent freezing unless the lift station and force main can be designed such that the force main will drain completely.

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

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

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

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

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

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

(2) extend to grade.

A cleanout may be installed at the terminus of a sewer provided that a manhole is within three hundred (300) feet of the terminus. (*Indiana State Department of Health; 410 IAC 6-10.1-65; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-66 Grease traps**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 66. (a) A grease trap shall be provided for the following:

(1) All commercial buildings with food service.

(2) All other commercial buildings with fats, oils, and grease greater than twenty-five (25) mg/L.

(b) Grease traps shall be:

(1) a commercially manufactured grease trap or grease recovery system installed inside the building and sized according to the manufacturer's recommendations and in accordance with the Uniform Plumbing Code;

(2) a commercially manufactured grease trap or grease recovery system installed outside the building and sized according to the manufacturer's recommendations; or

(3) an approved septic tank installed outside the building with the:

(A) outlet baffle extended to within six (6) inches of the tank bottom; and

(B) septic tank risers extended to grade and covered with a securely fastened lid.

(c) Sewage from food service sinks, dishwashers, and kitchen floor drains shall discharge to the grease trap. All other sewage from the facility shall be discharged directly to a septic tank.

(d) The size of the grease trap shall be determined by the following formula:

(1) grease trap size (in gallons) =  $M \times W \times R \times S$

(2) Where:

(A) M = Meals served at peak hour

(B) W = Waste flow rate:

(i) With dishwashing machine = 6 gallons

- (ii) Without dishwashing machine = 5 gallons
- (iii) Single service kitchen = 2 gallons
- (iv) Food waste disposal only = 1 gallon
- (C) R = Retention time:
  - (i) With dishwasher = 2.5 hours
  - (ii) Single service = 1.5 hours
- (D) S = Storage factor:
  - (i) Fully equipped kitchen, 8 hour operation = 1
  - (ii) Fully equipped kitchen, 16 hour operation = 2
  - (iii) Fully equipped kitchen, 24 hour operation = 3
  - (iv) Single service kitchen = 1.5

Except that the minimum storage capacity shall not be less than one thousand (1,000) gallons and does not need to exceed two thousand (2,000) gallons. (*Indiana State Department of Health; 410 IAC 6-10.1-66; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 67. (a) Sewage lift stations:

- (1) must be protected from damage by a one hundred (100) year flood event; and
- (2) shall remain fully operational and accessible by maintenance vehicles during a twenty-five (25) year flood event and all weather conditions.

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

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

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

(e) Controls other than float switches shall:

- (1) be installed outside the lift station;
- (2) comply with the Indiana Electrical Code (675 IAC 17); and
- (3) include automatic pump alternators.

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

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

- (1) located in an area where it can be observed twenty-four (24) hours a day; and
  - (2) powered by a circuit separate from the pump circuit.
- (g) Overflows from lift stations are not permitted.

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

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

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

(k) Separation distances between sanitary force mains and water lines shall be the same as required for gravity sewers. A

ten (10) foot horizontal separation is required between parallel water lines and force mains, and an eighteen (18) inch vertical separation is required where force mains cross water lines.

(l) Force mains crossing other properties will have to be kept accessible through construction and maintenance easements. (Indiana State Department of Health; 410 IAC 6-10.1-67; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

(1) watertight and constructed of durable material such as concrete, fiberglass, polyethylene, or polypropylene; and

(2) protected from corrosion.

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

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

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

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

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

(2) The divider wall shall be:

(A) monolithically cast in the tank; or

(B) permanently secured within the tank body using noncorrosive fasteners or fittings.

(3) The transfer port or ports between the compartments shall consist of two (2) or more openings with a combined area of at least fifty (50) square inches. A continuous port across the width of the divider wall is also acceptable.

(4) The transfer port or ports shall be located in the middle twenty-five percent (25%) of the liquid depth.

(5) An access opening meeting the requirements of section 69(o) of this rule must be provided above each compartment, including a riser meeting the requirements of section 69(p) of this rule, for maintenance pumping above each compartment.

(f) When multiple tanks are used in series, no single tank may be less than seven hundred fifty (750) gallons. The larger of the two (2) tanks must be upstream of the other.

(g) When sewage is pumped into a septic tank using a grinder pump:

(1) a two-compartment tank must be used with the sewage pumped into the first compartment; or

(2) two (2) tanks in series must be used, with the sewage pumped into the first tank.

(h) Tanks fitted with aeration units for aerobic digestion shall:

(1) conform to NSF/ANSI Standard 40-2010, Residential Wastewater Treatment Systems, for Class I plants or to standards of an equivalent third party product testing laboratory acceptable to the department that meet or exceed the NSF/ANSI standards;

(2) bear a current registered certification mark;

(3) provide a minimum aerobic treatment capacity to properly process the design daily flow;

(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

(5) discharge into a soil absorption system or other treatment system as approved in accordance with section 49(h) of this rule.

(i) Water softener backwash shall be discharged to:

(1) the building sewer;

(2) a secondary treatment device;

(3) the effluent sewer on the downstream side of either the septic tank or the secondary treatment device;

(4) the dosing tank serving the soil absorption system; or

(5) a separate soil absorption system constructed specifically for the water softener backwash.

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

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

(c) The inlet baffle or sanitary tee shall extend at least:

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

(2) to the top of the inlet sewer.

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

(e) Any septic tank not provided with an outlet filter shall be provided with:

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

(2) a gas deflection baffle that is:

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

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

(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 outlet baffles or tees.

(g) Scum storage capacity (space between the liquid level and the top of the outlet baffle or tees) shall be not less than twelve and one-half percent (12.5%) of the liquid depth of the septic tank, and not less than nine (9) inches.

(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 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 septic tank. Baffles shall be constructed of durable materials not subject to corrosion or decay.

(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 level.

(j) Reinforced concrete septic tanks shall be constructed of concrete with a compressive strength of four thousand (4,000) pounds per square inch or greater.

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

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

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

(n) Type III fibers are permitted only as a secondary reinforcing material. Fiber additions will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

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

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

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

(A) The inlet.

(B) The outlet.

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

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

(p) All risers shall meet the following requirements:

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

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

(A) cast into the tank lid; or

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

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

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

(1) Each pipe penetration shall be sealed with a 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) Connectors shall conform to:

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

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

*(Indiana State Department of Health; 410 IAC 6-10.1-69; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-70 Dosing tanks**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 70. (a) Dosing tanks:

(1) must be watertight and constructed of durable material such as concrete, 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 with a 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.

(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, Standard Specification for Resilient Connectors Between Reinforced Concrete On-Site Wastewater Tanks and Pipes; or

(B) ASTM C 923-08, 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 pump sized in conformance with section 73 and with section 84(b), 86(d), 86(g), 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 State Department of Health; 410 IAC 6-10.1-70; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

**410 IAC 6-10.1-71 Septic tanks and dosing tanks: installation and maintenance**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 71. (a) Septic tanks and dosing tanks shall be installed level on:

- (1) undisturbed soil;
- (2) sand;
- (3) aggregate not larger than one and one-half (1 1/2) inches in diameter; or
- (4) an engineered base.

(b) All drain holes in septic tanks and dosing tanks shall be:

- (1) fitted with a threaded fitting, cast in place, and plugged with a threaded plug; or
- (2) plugged with an expandable pipe plug with a wing nut.

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

(d) When the top of the septic tank or dosing tank is installed below grade, risers shall:

- (1) be installed over access openings used for pumping and for maintenance of the outlet filter in the septic tank;
- (2) be large enough for access to the tank through the access opening in the top of the septic tank or dosing tank to clean the tanks and to maintain floats, sensors, filters and pumps;
- (3) have the lower section sealed to the top of the tank with butyl sealant meeting ASTM C 990-09 to provide a watertight seal, if the riser assembly is not cast into the tank lid;
- (4) have joints between riser sections sealed in accordance with the manufacturer's instructions so as to be watertight;
- (5) extend to or above final grade; and
- (6) be fitted with a watertight cover securely fastened to the riser.

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

(f) All joints in the sewer connecting septic tanks in series or septic tanks to dosing tanks shall be sealed in accordance with the manufacturer's instructions in order to be watertight and to withstand the pressures exerted on them. (*Indiana State Department of Health; 410 IAC 6-10.1-71; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-72 Outlet filters**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

- (1) a single septic tank when not used in series;
- (2) the second compartment of two-compartment septic tanks;
- (3) the last septic tank when two (2) or more tanks are used in series; or
- (4) a secondary watertight structure located after the last septic tank prior to a dosing tank, distribution box, or secondary treatment unit.

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

- (1) located over the outlet filter; and
- (2) provided with a riser to grade that meets the minimum requirements of section 69(o) and 69(p) of this rule.

(e) Outlet filters shall:

- (1) conform to NSF/ANSI Standard 46-2010a, Evaluation of Components and Devices Used in Wastewater Treatment Systems, maintain a current product listing with an ANSI accredited third-party certifier, and bear a listing mark;
- (2) prevent the passage of solids larger than one-eighth (1/8) of an inch;

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

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

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

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

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

#### **410 IAC 6-10.1-73 Effluent pumps**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

as follows:

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

(4) Submersible pumps shall be provided with a corrosion resistant lifting apparatus such as a rope or chain to facilitate removal of the pump. For projects involving flows greater than seven hundred fifty (750) gallons per day, pumps must be mounted on guide rails manufactured to withstand the corrosive environment of a dosing tank.

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

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

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

(1) to the junction box; and

(2) between connector openings and incoming wires.

(g) Any connector not used for wiring shall be fitted with a watertight plug. *(Indiana State Department of Health; 410 IAC 6-10.1-73; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-74 Distribution box specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

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:

(1) be resistant to corrosion and decay; and

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

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

(c) The distribution box shall be fitted with a watertight, 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.

(d) 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.

(e) The influent port shall be located or baffled to prevent unequal distribution of effluent to the distribution system. If baffles are provided, the baffles and their mounts or retainers shall:

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

(2) extend to one (1) inch above the top of the inlet.

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

(1) If an elbow is used, the elbow must:

(A) be a ninety (90) degree elbow;

(B) 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

(C) include a weep hole in the upper part of the elbow.

(2) 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.

(g) 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 State Department of Health; 410 IAC 6-10.1-74; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-75 Pipe specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

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:

(A) For PVC pipe, the following:

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

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

(iii) ASTM D 3034-08 for the following:

(AA) SDR 26 and SDR 35 for four (4) inch through fifteen (15) inch pipe.

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

(B) For ABS pipe, the following:

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

(ii) ASTM D 2680-01 (Reapproved 2009) for eight (8) inch through fifteen (15) inch pipe.

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

(C) ASTM F 480-12, Schedule 40 and 80.

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

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

(A) For PVC pipe, the following:

(i) ASTM D 2241-09 SDR 13.5, SDR 17, SDR 21, or SDR 26.

(ii) ASTM D 1785-06 Schedule 40, 80, or 120.

(B) For ABS pipe, the following:

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

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

(b) Gasketed compression-type joints must be used on pressure sewers when they are located ten (10) feet or less from a water line.

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

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

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

(3) Four (4) inch diameter smooth interior wall polyethylene pipe meeting ASTM F 810-07 or AASHTO M252-09 Type SP.

(d) Gravity distribution laterals shall have two (2) or three (3) rows of holes separated by one hundred twenty (120) degrees with five-eighths (5/8) inch or three-quarters (3/4) inch hole diameter with holes spaced at five (5) inches or less.

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

(1) ASTM F 405-05.

(2) ASTM F 667-12.

(3) NRCS 606, September 2003.

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

#### **410 IAC 6-10.1-76 Aggregate specifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

(b) Aggregate:

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

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

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

(d) Fines, sand, and clay shall be removed from the aggregate prior to its placement in the trench. (*Indiana State Department of Health; 410 IAC 6-10.1-76; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-77 Barrier materials**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

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

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

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

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

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

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

(1) nonbiodegradable;

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

(3) resistant to common solvents.

(*Indiana State Department of Health; 410 IAC 6-10.1-77; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 78. (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.

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

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

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

(A) separation distances of section 61 of this rule; and

(B) dispersal area requirements of section 62 of this rule.

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

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

- (4) Site conditions permit distribution of effluent to each trench of the subsurface soil absorption system so that each trench can be loaded with a proportionate volume of effluent.
- (5) Site conditions permit any seasonal high water table at the site of the proposed subsurface trench soil absorption system to be lowered to at least thirty-four (34) inches below original grade, in accordance with section 63 of this rule.
- (6) When there are no 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) 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> | Fragile 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 Sandy Loam                                                                 | N/A                    | 0.75     | N/A                                            | 0.60                                             | 0.60                                                             | 0.00                                           | 0.60                                        | 0.00                                                               |
| Loam                                                                                                | N/A                    | 0.75     | 0.75                                           | 0.50                                             | 0.50                                                             | 0.00                                           | 0.50                                        | 0.00                                                               |
| Silt Loam, Silt                                                                                     | N/A                    | 0.75     | 0.75                                           | 0.50                                             | 0.30                                                             | 0.00                                           | 0.30                                        | 0.00                                                               |

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|                                                                                                                                                                          |     |      |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------|------|------|------|------|------|
| 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 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 State Department of Health; 410 IAC 6-10.1-78; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

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) of this rule;
  - (3) trench bottoms will be at least thirty (30) inches above any horizon with:
    - (A) a soil loading rate less than twenty-five hundredths (0.25) gallons per day per square foot or greater than seventy-five hundredths (0.75) gallons per day per square foot;
    - (B) any soil horizon in a soil developed from Wisconsin glacial till that shows effervescence when treated with a ten percent (10%) hydrochloric acid solution, unless:
      - (i) the on-site soils evaluation report shows that the presence of the horizon is not detrimental to the proper functioning of an on-site sewage system; and
      - (ii) the determination in item (i) is made using the guidelines as set forth in the soil manuals, technical bulletins, and handbooks of the NRCS guidelines and as approved by the department;
    - (C) less than twenty percent (20%) clay by volume and greater than thirty-five percent (35%) coarse fragments by

volume; or

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

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

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

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

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

(3) trench bottoms will be at least twenty-four (24) inches above any horizon with:

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

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

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

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

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

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

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

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

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

(2) trench bottoms will be at least twenty-four (24) inches above any horizon with:

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

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

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

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

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

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

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

(f) If any soil horizon within twenty-four (24) inches of the proposed trench bottom has a soil loading rate of one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table V in section 78(b)(8) of this rule, the on-site sewage system shall utilize pressure distribution. (*Indiana State Department of Health; 410 IAC 6-10.1-79; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-80 Elevated sand mound on-site sewage system site suitability**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

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

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

(3) The site on which the elevated sand mound on-site sewage system is to be built has a slope of six percent (6%) or less.

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

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

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

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

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

(7) All soil horizons from the original grade to twenty (20) inches below the original grade have a soil loading rate of not less than twenty-five hundredths (0.25) gallons per day per square foot and not more than one and twenty-hundredths (1.20) gallons per day per square foot as determined from Table VI as follows:

| Table VI - Soil Loading Rates for Elevated Sand Mound On-Site Sewage Systems (in gpd/ft <sup>2</sup> ) |                        |          |                                                                |                                                                  |                                                                                     |                                                            |                                                      |                                                                                |
|--------------------------------------------------------------------------------------------------------|------------------------|----------|----------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------|
| SOIL<br>TEXTURE<br>CLASSES                                                                             | SOIL STRUCTURE CLASSES |          |                                                                |                                                                  |                                                                                     |                                                            |                                                      |                                                                                |
|                                                                                                        | Single<br>Grain        | Granular | Strong:<br>Angular,<br>Sub-<br>Angular<br>Blocky,<br>Prismatic | Moderate:<br>Angular,<br>Sub-<br>Angular<br>Blocky,<br>Prismatic | Weak:<br>Angular,<br>Sub-<br>Angular<br>Blocky;<br>Prismatic;<br>Platy <sup>1</sup> | Fragile<br>Characteristics:<br>Very<br>Coarse<br>Prismatic | Structureless,<br>Massive,<br>Friable, V.<br>Friable | Structureless,<br>Massive,<br>Compact,<br>Firm, V.<br>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                                                                      | 0.60                   | 0.60     | N/A                                                            | 0.60                                                             | 0.60                                                                                | N/A                                                        | 0.60                                                 | N/A                                                                            |

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|                                                                                                                                                               |      |      |      |      |      |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|------|------|------|
| 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. |      |      |      |      |      |      |      |      |

(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 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 State Department of Health; 410 IAC 6-10.1-80; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-81 Table for on-site sewage system selection**

Authority: IC 16-19-3-4; IC 16-19-3-5

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) |

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|                                                                                                                                                                   | Gravity Flow <sup>1</sup><br>(Sec. 78, 79) |        | Flood Dosing or<br>Alt. Fields <sup>1</sup><br>(Sec. 78, 79) | Flood Dosing <sup>1</sup><br>(Sec. 78, 79) | Pressure Dist.<br>(Sec. 78, 79)            |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------|--------------------------------------------------------------|--------------------------------------------|--------------------------------------------|--------|
| Slope                                                                                                                                                             | ≤ 15%                                      |        | ≤ 15%                                                        | ≤ 15%                                      | ≤ 15%                                      | ≤ 6%   |
| Design Daily Flow                                                                                                                                                 | ≥ 450                                      | < 450  | Any                                                          | Any                                        | Any                                        | Any    |
| Acceptable Loading Rate Range<br>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<br>(Ground Surface for Mounds) to<br>Layer with a Soil Loading Rate<br>< 0.25 gpd/ft <sup>2</sup>                                     | ≥ 30                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>Layer with a Soil Loading Rate<br>> 1.20 gpd/ft <sup>2</sup>                                     | ≥ 24                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>Layer with a Soil Loading Rate<br>= 1.20 gpd/ft <sup>2</sup>                                     | ≥ 24                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | Press. Dist.<br>required for<br>SLR = 1.20 | ≥ 0    |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>a Soil Horizon Developed from<br>Wisconsin Glacial Till That<br>Shows Effervescence <sup>3</sup> | ≥ 30                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>Soil Horizon with < 20% Clay<br>and > 35% Coarse Fragments<br>by Volume                          | ≥ 30                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>Soil Horizon with > 20% Clay<br>and > 60% Coarse Fragments<br>by Volume                          | ≥ 30                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Distance from Trench Bottom<br>(Ground Surface for Mounds) to<br>Seasonal High Water Table <sup>2</sup>                                                           | ≥ 24                                       | ≥ 24   | ≥ 24                                                         | ≥ 24                                       | ≥ 24                                       | ≥ 20   |
| Total Lineal Feet of Trench                                                                                                                                       | ≤ 500                                      | ≤ 500  | ≤ 500 for Alt.<br>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 59 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).

*(Indiana State 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)*

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

Authority: IC 16-19-3-4; IC 16-19-3-5

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) 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:

$$\text{Area} = \frac{\text{DDF}}{\text{Soil loading rate in gpd/sq. ft.}}$$

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

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

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

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

- (g) If trees are present within the proposed soil absorption system:

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

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

- (1) result in irreversible damage to the soil infiltrative surface; and
- (2) be grounds for rejection of the site or the on-site sewage system, or both.
- (i) The commercial sewer shall be a minimum of four (4) inches in diameter. Four (4) inch sewers shall be installed with a positive slope of:
  - (1) not less than four (4) inches in twenty-five (25) feet; and
  - (2) not more than thirty-six (36) inches in twenty-five (25) feet.
- (j) A six (6) inch commercial sewer, if utilized, shall be installed with a positive slope of:
  - (1) not less than two (2) inches in twenty-five (25) feet; and
  - (2) not more than thirty-six (36) inches in twenty-five (25) feet.
- (k) A vertical drop may be installed in a commercial sewer. Each vertical drop shall have a cleanout located immediately upslope.
- (l) Effluent sewers shall meet the following requirements:
  - (1) Effluent sewers shall be a minimum of four (4) inches in diameter.
  - (2) Effluent sewer pipe 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%).
- (m) All sewer and effluent sewer joints shall be sealed according to the manufacturer's recommendations in order to be watertight and to withstand the pressures exerted on them.
- (n) The absorption trenches of a subsurface trench soil absorption system shall be constructed along the contour.
- (o) The minimum depth from original grade to the bottom of a trench of a subsurface trench soil absorption system 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 soil absorption system shall not be more than thirty-six (36) inches.
- (p) All subsurface trench soil absorption systems shall be designed to utilize trenches with a minimum width of eighteen (18) inches and a maximum trench width of thirty-six (36) inches.
- (q) There shall be a minimum separation of seven and one-half (7 1/2) feet, on center, between soil absorption system trenches, measured perpendicular to the trenches.
- (r) No single absorption trench in a subsurface trench soil absorption system shall exceed one hundred (100) feet in length, except for subsurface trench pressure distribution on-site sewage systems.
- (s) Each trench and distribution lateral in a subsurface trench soil absorption system shall be uniformly level throughout its length and width.
- (t) The distal ends of distribution laterals and trenches shall not be tied together.
- (u) The distal end of each distribution lateral shall be capped, with the cap joint sealed according to the manufacturer's recommendations in order to be watertight and to withstand the pressures exerted on it.
- (v) Perforated pipe distribution laterals in the absorption trench of a subsurface trench soil absorption system shall be completely surrounded by aggregate that meets the specifications in section 76 of this rule. There shall be at least six (6) inches of aggregate below the pipe.
- (w) The minimum depth of aggregate above the distribution laterals shall be:
  - (1) two (2) inches throughout the entire length and width of trenches having a depth of twelve (12) inches or greater; or
  - (2) two (2) inches above the distribution lateral for the entire length of trenches having a depth of ten (10) inches to twelve (12) inches.
- (x) The aggregate used in a subsurface trench soil absorption system shall be covered with a geotextile fabric barrier in such a manner as to prevent the aggregate from becoming clogged with the earth fill. The barrier material shall:
  - (1) meet the minimum requirements in section 77 of this rule;
  - (2) be placed on the aggregate to prevent soil particle movement into the aggregate; and
  - (3) cover the aggregate from side to side and from end to end.
- (y) A minimum of twelve (12) inches of cover shall be provided over the aggregate in the trenches, and any fill required to provide cover shall be crowned over the entire soil absorption system to promote surface runoff.
- (z) Tire chips, if used for aggregate, will have protruding wires and shall be removed from the ground surface during site cleanup. (*Indiana State Department of Health; 410 IAC 6-10.1-82; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; errata filed Dec 12, 2012, 2:16 p.m.: 20121226-IR-410120157ACA*)

**410 IAC 6-10.1-83 Subsurface trench gravity on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 83. (a) Subsurface trench gravity on-site sewage systems shall meet all of the requirements of:

(1) section 82 of this rule; and

(2) this section.

(b) A distribution box or series of distribution boxes shall be installed between the septic tank and the subsurface soil absorption system, and each absorption system trench shall be connected directly to a distribution box using an effluent sewer.

(c) Distribution boxes shall be installed level on either undisturbed soil, sand, sand mix, aggregate not larger than one-half (1/2) inch in diameter, or engineered base, and the outlets shall be checked to assure that they are at a uniform elevation.

(d) Effluent sewer pipe in a subsurface trench gravity on-site sewage system shall meet the following requirements:

(1) For installation prior to a distribution box, effluent sewer pipe shall be bedded according to manufacturer requirements and backfilled with debris-free soil material or aggregate without damaging the pipe.

(2) For installation after a distribution box, effluent sewer pipe shall be stabilized, bedded, and backfilled without damaging the pipe with debris-free soil material to prevent the movement of effluent along the outside of the pipe.

(e) The invert elevation of the end of each effluent sewer pipe connected to a distribution box shall be at the same elevation so that each gravity distribution lateral receives an equal volume of effluent.

(f) Each effluent sewer from an outlet of a distribution box that directly serves a trench shall extend into the aggregate in the trench.

(g) All soil absorption system gravity distribution laterals shall have an internal diameter of four (4) inches.

(h) Gravity distribution laterals in the aggregate trenches shall be installed level along their length:

(1) for two (2) hole gravity distribution laterals, the laterals shall be placed in the aggregate with the rows of holes located at one hundred twenty (120) and two hundred forty (240) degrees from vertical (rows of holes at four (4) o'clock and eight (8) o'clock); and

(2) for three (3) hole gravity distribution laterals, the laterals shall be placed in the aggregate with the rows of holes located at one hundred twenty (120), two hundred forty (240), and three hundred sixty (360) degrees from vertical (rows of holes at four (4) o'clock, eight (8) o'clock, and twelve (12) o'clock).

(i) In order to provide equal flow distribution in gravity feed subsurface soil absorption systems, each absorption field trench must be individually connected to a distribution box. The distribution box shall be at least five (5) feet from the proximal end of each soil absorption field trench and shall be connected to the absorption field trench by unperforated pipe that is laid with a gravel free backfill to the point where the unperforated pipe enters the aggregate in the trench. All absorption trenches served by a common distribution box must be constructed so that each trench served by the distribution box is loaded with an equal volume of effluent. (*Indiana State Department of Health; 410 IAC 6-10.1-83; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-84 Subsurface trench flood dosed on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 84. (a) Subsurface trench flood dosed on-site sewage systems shall meet all of the requirements of:

(1) sections 82 and 83 of this rule; and

(2) this section.

(b) When a subsurface trench flood dosed soil absorption system is used, the dosing effluent pump shall be sized, and its controls set to deliver the DDF to the soil absorption field in each dose. Effluent pump selection shall be based on manufacturer's pump curves for the required discharge rate from Table VIII, as follows, at the total head imposed on the pump:

| Table VIII - Required Effluent Pump Discharge Rates for Subsurface Trench Flood Dosed On-Site Sewage Systems |                                      |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Design Daily Flow                                                                                            | Discharge Rate in Gallons per Minute |
| 150-299                                                                                                      | 30                                   |
| 300-449                                                                                                      | 30                                   |

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|         |       |
|---------|-------|
| 450-599 | 30-45 |
| 600-749 | 30-60 |
| 750-899 | 38-75 |
| 900+    | 45-90 |

(c) The total head for a subsurface trench flood dosed soil absorption system shall be the elevation difference between the effluent pump off and the highest point in the force main or the outlet of the effluent force main in the distribution box, whichever is the highest elevation, in addition to the friction loss in the effluent force main expressed in feet.

(d) The effluent force main shall drain unless it is installed below the frost line, as listed in Table IX, as follows, and designed so that no effluent remains in any portion of the effluent force main located above the frost line:

Table IX - Frost Penetrations in Indiana (in inches)

|             |    |            |    |            |    |             |    |
|-------------|----|------------|----|------------|----|-------------|----|
| Adams       | 60 | Franklin   | 48 | Lawrence   | 48 | Rush        | 54 |
| Allen       | 60 | Fulton     | 60 | Madison    | 60 | St. Joseph  | 60 |
| Bartholomew | 48 | Gibson     | 42 | Marion     | 54 | Scott       | 36 |
| Benton      | 60 | Grant      | 54 | Marshall   | 60 | Shelby      | 54 |
| Blackford   | 60 | Greene     | 54 | Martin     | 48 | Spencer     | 36 |
| Boone       | 54 | Hamilton   | 54 | Miami      | 60 | Starke      | 60 |
| Brown       | 48 | Hancock    | 54 | Monroe     | 48 | Steuben     | 60 |
| Carroll     | 60 | Harrison   | 36 | Montgomery | 60 | Sullivan    | 54 |
| Cass        | 60 | Hendricks  | 54 | Morgan     | 48 | Switzerland | 42 |
| Clark       | 36 | Henry      | 54 | Newton     | 60 | Tippecanoe  | 60 |
| Clay        | 54 | Howard     | 60 | Noble      | 60 | Tipton      | 60 |
| Clinton     | 54 | Huntington | 60 | Ohio       | 42 | Union       | 48 |
| Crawford    | 36 | Jackson    | 48 | Orange     | 42 | Vanderburgh | 36 |
| Daviess     | 48 | Jasper     | 60 | Owen       | 54 | Vermillion  | 60 |
| Dearborn    | 48 | Jay        | 60 | Parke      | 60 | Vigo        | 60 |
| Decatur     | 48 | Jefferson  | 42 | Perry      | 36 | Wabash      | 60 |
| Dekalb      | 60 | Jennings   | 48 | Pike       | 42 | Warren      | 60 |
| Delaware    | 60 | Johnson    | 54 | Porter     | 60 | Warrick     | 36 |
| Dubois      | 42 | Knox       | 48 | Posey      | 42 | Washington  | 36 |
| Elkhart     | 60 | Kosciusko  | 60 | Pulaski    | 60 | Wayne       | 54 |
| Fayette     | 54 | LaGrange   | 60 | Putnam     | 54 | Wells       | 60 |
| Floyd       | 36 | Lake       | 60 | Randolph   | 54 | White       | 60 |
| Fountain    | 60 | LaPorte    | 60 | Ripley     | 48 | Whitley     | 60 |

(e) In addition to the liquid holding capacity of a dosing tank stated in section 70(f) of this rule the following shall apply:

(1) If the effluent force main drains to the soil absorption system, or if it does not drain between doses, the dosing tank volume shall be the DDF.

(2) If the effluent force main drains back to the dosing tank, the dosing tank volume shall be the DDF plus the volume contained in the effluent force main.

(f) The distal end of the effluent force main in the distribution box must be fitted with an elbow turned down, or else the distribution box must be baffled.

(g) The minimum inside diameter of the effluent force main shall be one (1) inch. The maximum inside diameter of the effluent force main shall be four (4) inches.

(h) Tables X and XI, as follows, shall be used in determining friction losses in the effluent force mains and manifold when plastic pipe is used:

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**Table X - Friction Losses in Plastic Pipe (per 100 feet of pipe)**  
**Pipe Diameter, Flow (gpm), Velocity (v)<sup>2</sup>, and Friction Loss Head (H<sub>f</sub>)<sup>1</sup>**

| Flow<br>(gpm) | 1"   |                | 1 ¼" |                | 1 ½" |                | 2"   |                | 2 ½" |                | 3"   |                | 4"   |                |
|---------------|------|----------------|------|----------------|------|----------------|------|----------------|------|----------------|------|----------------|------|----------------|
| Q             | v    | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> | v    | H <sub>f</sub> |
| 1             | 0.37 | 0.11           |      |                |      |                |      |                |      |                |      |                |      |                |
| 2             | 0.74 | 0.38           | 0.43 | 0.10           |      |                |      |                |      |                |      |                |      |                |
| 3             | 1.11 | 0.78           | 0.64 | 0.21           | 0.47 | 0.10           |      |                |      |                |      |                |      |                |
| 4             | 1.49 | 1.31           | 0.86 | 0.35           | 0.63 | 0.16           |      |                |      |                |      |                |      |                |
| 5             | 1.86 | 1.92           | 1.07 | 0.52           | 0.79 | 0.24           |      |                |      |                |      |                |      |                |
| 6             | 2.23 | 2.70           | 1.29 | 0.71           | 0.95 | 0.33           | 0.57 | 0.10           |      |                |      |                |      |                |
| 8             | 2.97 | 4.59           | 1.72 | 1.19           | 1.26 | 0.56           | 0.77 | 0.17           |      |                |      |                |      |                |
| 10            | 3.71 | 6.90           | 2.15 | 1.78           | 1.58 | 0.83           | 0.96 | 0.25           | 0.67 | 0.11           |      |                |      |                |
| 15            | 5.57 | 14.7           | 3.22 | 3.76           | 2.37 | 1.74           | 1.43 | 0.52           | 1.01 | 0.22           |      |                |      |                |
| 20            | 7.43 | 25.2           | 4.29 | 6.42           | 3.16 | 2.96           | 1.91 | .87            | 1.34 | 0.37           | 0.87 | 0.13           |      |                |
| 25            | 9.28 | 38.6           | 5.37 | 9.74           | 3.94 | 4.46           | 2.39 | 1.29           | 1.68 | 0.54           | 1.09 | 0.19           |      |                |
| 30            |      |                | 6.44 | 13.6           | 4.73 | 6.27           | 2.87 | 1.81           | 2.01 | 0.76           | 1.30 | 0.26           |      |                |
| 35            |      |                | 7.51 | 18.2           | 5.52 | 8.40           | 3.35 | 2.42           | 2.35 | 1.01           | 1.52 | 0.35           | 0.88 | 0.10           |
| 40            |      |                | 8.59 | 23.6           | 6.30 | 10.7           | 3.83 | 3.12           | 2.68 | 1.28           | 1.74 | 0.44           | 1.01 | 0.12           |
| 45            |      |                |      |                | 7.09 | 13.5           | 4.30 | 3.85           | 3.02 | 1.54           | 1.95 | 0.55           | 1.13 | 0.15           |
| 50            |      |                |      |                | 7.88 | 16.5           | 4.78 | 4.68           | 3.35 | 1.93           | 2.17 | 0.67           | 1.26 | 0.18           |
| 60            |      |                |      |                | 9.47 | 23.6           | 5.74 | 6.62           | 4.02 | 2.72           | 2.60 | 0.94           | 1.51 | 0.25           |
| 70            |      |                |      |                |      |                | 6.70 | 8.86           | 4.69 | 3.67           | 3.04 | 1.25           | 1.76 | 0.33           |
| 80            |      |                |      |                |      |                | 7.65 | 11.5           | 5.36 | 4.69           | 3.47 | 1.59           | 2.02 | 0.42           |
| 90            |      |                |      |                |      |                | 8.60 | 14.3           | 6.03 | 5.83           | 3.91 | 1.99           | 2.27 | 0.52           |
| 100           |      |                |      |                |      |                |      |                | 6.70 | 7.13           | 4.34 | 2.42           | 2.52 | 0.63           |
| 125           |      |                |      |                |      |                |      |                | 8.38 | 10.9           | 5.43 | 3.72           | 3.15 | 0.96           |
| 150           |      |                |      |                |      |                |      |                |      |                | 6.51 | 5.16           | 3.78 | 1.34           |
| 175           |      |                |      |                |      |                |      |                |      |                | 7.60 | 6.90           | 4.41 | 1.79           |
| 200           |      |                |      |                |      |                |      |                |      |                | 8.68 | 8.93           | 5.04 | 2.27           |
| 225           |      |                |      |                |      |                |      |                |      |                |      |                | 5.67 | 2.84           |
| 250           |      |                |      |                |      |                |      |                |      |                |      |                | 6.30 | 3.37           |
| 275           |      |                |      |                |      |                |      |                |      |                |      |                | 6.93 | 4.13           |
| 300           |      |                |      |                |      |                |      |                |      |                |      |                | 7.56 | 4.87           |
| 325           |      |                |      |                |      |                |      |                |      |                |      |                | 8.19 | 5.70           |

<sup>1</sup> This figure is based on flows for PVC Schedule 40 pipe (flow coefficient: C-150). Other values for friction loss may be used if documentation from the pipe manufacturer is provided with the plan submittal. Calculations using the Hazen-Williams equation may be used if provided with the plan submittal.

<sup>2</sup> Flow velocity must be at least 2 fps; flow velocities above 5 fps should be avoided.

**Table XI - Plastic Pipe Fittings: Friction Loss - Equivalent Length of Straight Pipe (ft.)\***

| Fitting:                                 | 1"  | 1 ¼" | 1 ½" | 2"   | 2 ½" | 3"   | 4"   |
|------------------------------------------|-----|------|------|------|------|------|------|
| 90° elbow, standard sharp, inside radius | 5.3 | 6.7  | 7.5  | 8.6  | 9.3  | 11.1 | 13.1 |
| 90° elbow, long sweep radius             | 2.5 | 3.8  | 4.0  | 5.7  | 6.9  | 7.9  | 12.0 |
| 45° elbow, standard                      | 1.4 | 1.8  | 2.1  | 2.6  | 3.1  | 4.0  | 5.1  |
| Tee Flow (run flow)                      | 1.7 | 2.3  | 2.7  | 4.3  | 5.1  | 6.2  | 8.3  |
| Tee Flow (branch flow)                   | 6.0 | 7.0  | 8.0  | 12.0 | 15.0 | 16.0 | 22.0 |
| Gate Valve                               | 0.6 | 0.8  | 1.0  | 1.5  | 1.6  | 2.0  | 3.0  |
| Male/Female adapter                      | 2.0 | 2.8  | 3.5  | 4.5  | 5.5  | 6.5  | 9.0  |

|                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------|
| *Assigned values. Other values for friction loss may be used if documentation from the pipe manufacturer is provided with the plan submittal. |
|-----------------------------------------------------------------------------------------------------------------------------------------------|

(Indiana State Department of Health; 410 IAC 6-10.1-84; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-85 Subsurface trench alternating field on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 85. (a) Subsurface trench alternating field on-site sewage systems shall meet all of the requirements of:

(1) sections 82 and 83 of this rule; and

(2) this section.

(b) Each side of the soil absorption system shall contain the total square footage of soil absorption area calculated from section 82(a) of this rule.

(c) A diversion valve shall be installed between the septic tank and the distribution boxes. An access riser, extending to the ground surface, shall be installed over the diversion valve. (Indiana State Department of Health; 410 IAC 6-10.1-85; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-86 Subsurface trench pressure distribution on-site sewage systems: design and construction requirements**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 86. (a) Subsurface trench pressure distribution on-site sewage systems shall meet all of the requirements of:

(1) section 82 of this rule; and

(2) this section.

(b) Each pipe connected to an outlet in the manifold of a subsurface pressure distribution on-site sewage system shall be counted as a separate distribution lateral.

(c) An inline residual pressure of two and five-tenths (2.5) to three (3) feet of head shall be maintained in the pressure distribution lateral at the highest elevation in the soil absorption system during pumping.

(d) The effluent pump shall be sized and its controls set as follows:

(1) When a subsurface pressure distribution on-site sewage system is designed using a soil loading rate of less than one and two-tenths (1.2) gallons per day per square foot, the pump shall deliver the DDF to the soil absorption field in each dose.

(2) When a subsurface pressure distribution on-site sewage system is designed using a soil loading rate of one and two-tenths (1.2) gallons per day per square foot, the pump shall deliver four (4) doses each day, each dose being approximately one-fourth (1/4) of the DDF.

(e) The effluent force main shall drain unless it is installed below the frost line, as listed in Table IX in section 84(d) of this rule and designed so that no effluent remains in any portion of the effluent force main located above the frost line.

(f) The liquid holding capacity of the dosing tank shall be determined as follows:

(1) If the effluent force main drains to the subsurface pressure distribution on-site sewage system, or if it does not drain between doses, the dosing tank volume shall be the dose calculated using subsection (d)(1) or (d)(2), whichever is applicable.

(2) If the effluent force main drains back to the dosing tank, the dosing tank volume shall be the dose calculated using subsection (d)(1) or (d)(2), whichever is applicable, plus the volume contained in the effluent force main.

(3) Additional dosing tank capacity must be provided to:

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

(B) provide sufficient freeboard for a high water alarm.

(g) For installation for a subsurface trench pressure distribution on-site sewage system, the effluent force main shall be stabilized and backfilled without damaging the pipe with debris-free soil material to prevent the movement of effluent along the outside of the pipe.

(h) The minimum inside diameter of the effluent force main shall be one and one-half (1 1/2) inches. The maximum inside diameter of the effluent force main shall be four (4) inches.



(n) The holes in the pressure distribution laterals shall be placed in the trenches facing down, and all burrs shall be removed from the edges of the holes.

(o) The hole size in the pressure distribution laterals shall be one-fourth (1/4) inch.

(p) The perforation discharge rate shall be determined in accordance with the formula used to compute the flow from a hole in the pressure distribution lateral at inline head as follows:

$$Q = 11.78(d^2)(\sqrt{H})$$

Where: Q = the volume of the flow from the hole.  
d = the diameter of the hole in the pipe.  
H = the inline head at the hole.

Table XV, as follows, gives the discharge rates at varying heads that would be obtained using the formula above in which "d" equals one-fourth (1/4) inch diameter holes:

| Table XV - Perforation Discharge Rates in GPM at Varying Inline Heads for 1/4 Inch Diameter Hole Size |                                                 |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| Inline Head (feet)                                                                                    | Perforation Discharge Rate (gallons per minute) |
| 2.5                                                                                                   | 1.17                                            |
| 3.0                                                                                                   | 1.28                                            |
| 3.5                                                                                                   | 1.38                                            |
| 4.0                                                                                                   | 1.47                                            |
| 4.5                                                                                                   | 1.56                                            |
| 5.0                                                                                                   | 1.65                                            |
| 5.5                                                                                                   | 1.73                                            |

(q) Effluent pump selection for soil absorption systems using pressure distribution shall be based on the manufacturer's pump curves for the required pump discharge rate at the total head imposed on the pump. The pump discharge rate for level on-site sewage systems is calculated by using the following formula:

Pump discharge rate = Perforation discharge rate × total number of perforations

To obtain the pump discharge rate required for sloping sites, the rate must be calculated individually for each pressure distribution lateral using the pump discharge rate formula based on the pressure on that line, and the sum of the calculated discharge rates determined for each individual line.

(r) The end of each pressure distribution lateral shall be capped, and a one-fourth (1/4) inch hole shall be drilled in the upper half of the end cap.

(s) All joints, including the end cap, shall withstand the pressures exerted on them. (*Indiana State Department of Health; 410 IAC 6-10.1-86; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

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

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

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

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

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

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

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

(A) The maximum aggregate bed width (ft.) ( $AB_w$ ) =  $0.83 \text{ ft}^2/\text{gpd}$

where 0.83 is a conversion factor ( $\text{ft}^2/\text{gpd}$ )

SLR is soil loading rate, and

where: DDF is design daily flow, and

n is determined by the DDF in this chart

| DDF (gpd)   | n |
|-------------|---|
| $\leq 1500$ | 3 |
| 1501-3000   | 4 |
| 3001-4000   | 5 |

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

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

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

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

(i) If the soil loading rate is fifty-hundredths (0.50) gallons per day per square foot ( $\text{gpd/ft}^2$ ) or less, the width of the aggregate bed shall be not greater than fifteen (15) feet, and shall not exceed the maximum bed width calculated in clause (A).

(ii) If the soil loading rate is greater than fifty-hundredths (0.50) gallons per day per square foot ( $\text{gpd/ft}^2$ ), the width of the aggregate bed shall be not greater than twenty (20) feet, and shall not exceed 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.

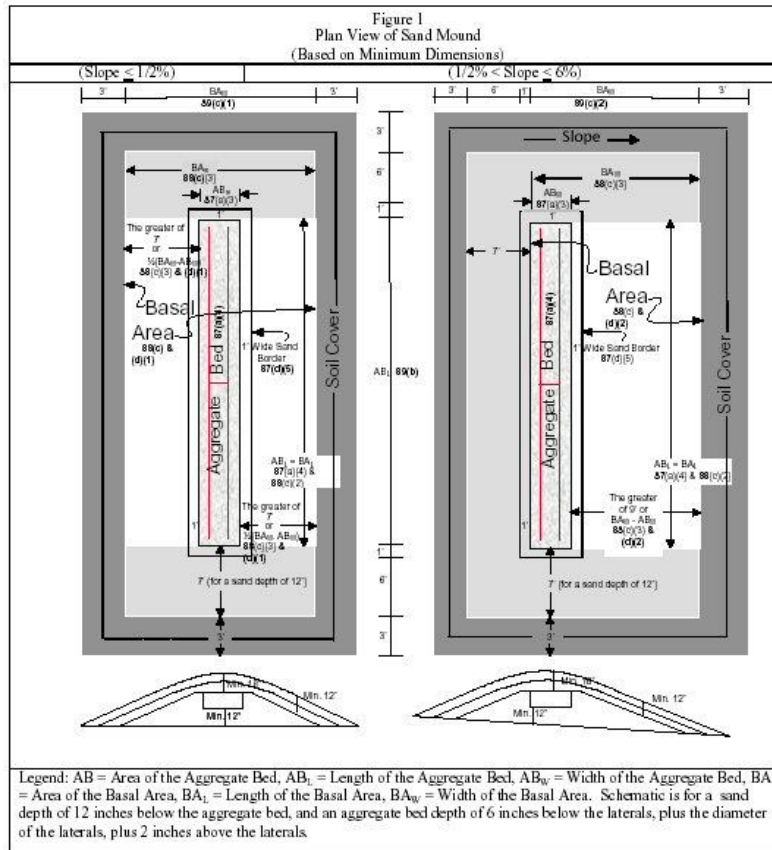
(2) The bottom of the aggregate bed shall be level along its length and width.

(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:



(Indiana State 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)

#### 410 IAC 6-10.1-88 Elevated sand mound on-site sewage systems: design of basal area

Authority: IC 16-19-3-4; IC 16-19-3-5

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.

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

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

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

using the soil loading rates from Table VI in section 80(b)(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 (20) inches below the ground surface.

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

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

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

|     |                                    |                                             |
|-----|------------------------------------|---------------------------------------------|
| (B) | Slope                              | Minimum Basal Area Width (BA <sub>w</sub> ) |
|     | $0\% \leq \text{slope} \leq 1/2\%$ | Aggregate bed width + 14 ft.                |
|     | $1/2\% < \text{slope} \leq 6\%$    | 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).

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

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

(2) on sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), the area under the aggregate bed and extending directly downslope from the aggregate bed.

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

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

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

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

(g) The long axis of the basal area and elevated sand mound shall be constructed along the contour of the soil absorption system site.

(h) The minimum depth of the INDOT Specification 23 sand under the aggregate bed shall be twelve (12) inches.

(i) The INDOT Specification 23 sand shall have a minimum final grade on all sides of three-to-one (3:1).

(j) The INDOT Specification 23 sand used in the elevated sand mound shall meet the following standard:

| Table XVI - INDOT Specification 23 Sand*                                                                     |                                       |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 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 shall not have more than forty-five percent (45%) retained between any two (2) consecutive sieves. |                                       |

(k) Figure 1 in section 87(d) of this rule presents a visual depiction of the location of the basal area within the elevated sand mound. (*Indiana State Department of Health; 410 IAC 6-10.1-88; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-89 Elevated sand mound on-site sewage systems: dimensions of the elevated sand mound**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 89. (a) Numerical dimensions for the soil material cover from the edge of the basal area to the edge of the elevated sand mound are based on a final grade of three-to-one (3:1) (on level sites). The plan views and numerical dimensions are for a simple slope (a slope that forms a plane). Elevated sand mounds sited on complex slopes are more difficult to design and construct on contour.

(b) The minimum length of an elevated sand mound shall be the sum of the following:

(1) The length of the aggregate bed (AB<sub>L</sub>).

(2) Plus fourteen (14) feet, representing the two sideslopes of INDOT Specification 23 sand at both ends of the aggregate bed (including the one (1) foot level borders). A minimum endslope grade of three-to-one (3:1) shall be maintained on the

INDOT Specification 23 sand.

(3) Plus six (6) feet, representing the soil material cover at both ends of the aggregate bed. A minimum endslope grade of three-to-one (3:1) shall be maintained on the soil cover material.

(c) The minimum width of the elevated sand mound shall be determined from the following:

(1) On sites with slopes one-half percent (1/2%) or less, the minimum width of an elevated sand mound is the sum of the following:

(A) The basal area width ( $BA_w$ ) as determined in section 88(c)(3) of this rule.

(B) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed.

(2) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), the minimum width of an elevated sand mound shall be the sum of the following:

(A) The basal area width ( $BA_w$ ) as determined in section 88(c)(3) of this rule.

(B) Plus seven (7) feet, representing the sideslope of INDOT Specification 23 sand on the upslope side of the aggregate bed (including the one (1) foot level border), and shall maintain a minimum sideslope grade of three-to-one (3:1).

(C) Plus six (6) feet, representing the soil material cover on both sides of the aggregate bed. A minimum sideslope grade of three-to-one (3:1) shall be maintained on the soil cover material.

*(Indiana State Department of Health; 410 IAC 6-10.1-89; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-90 Elevated sand mound on-site sewage systems: pressure distribution network**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 90. (a) The effluent force main shall drain unless it is installed below the frost line, as listed in Table IX in section 84(d) of this rule, and designed so that no effluent remains in any portion of the effluent force main located above the frost line.

(b) The effluent pump shall be sized, and its controls set, to deliver approximately one-fourth (1/4) of the DDF per dose.

(c) The liquid holding capacity of the dosing tank shall be determined as follows:

(1) If the effluent force main and manifold do not drain to the dosing tank, the dosing tank volume shall be one-fourth (1/4) of the DDF.

(2) If the effluent force main and manifold drain to the dosing tank, the dosing tank volume shall be one-fourth (1/4) of the DDF plus the volume of the effluent force main.

(3) Additional dosing tank capacity must be provided to:

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

(B) provide sufficient freeboard for a high water alarm.

(d) The minimum inside diameter of the effluent force main shall be one and one-half (1 1/2) inches. The maximum inside diameter of the effluent force main shall be four (4) inches.

(e) Tables X and XI in section 84(h) of this rule, or equivalent tables provided by the pipe manufacturer, shall be used in determining friction losses in the effluent force main and manifold when plastic pipe is used. The Hazen-Williams equation may also be used to determine friction loss in the effluent force main and manifold.

(f) The design of the pressure distribution network shall meet the following requirements:

(1) The effluent force main shall approach the elevated sand mound as follows:

(A) On sites with slopes of one-half percent (1/2%) or less, from either end.

(B) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), from the upslope side. If approach from the upslope side of the elevated sand mound is not possible due to site limitations, the effluent force main may approach from either end.

(2) The design (location) of the effluent force main shall provide for minimal disturbance of the basal area during installation.

(g) Manifolds shall be installed between the effluent force main and the pressure distribution laterals as follows:

(1) The manifold shall be located in the aggregate bed.

(2) The manifold pipe shall:

(A) for on-site sewage systems with a DDF of seven hundred fifty (750) gallons per day or less, have a diameter of two

(2) inches; or

(B) for on-site sewage systems with a DDF of greater than seven hundred fifty (750) gallons per day, have the same diameter as the effluent force main or a diameter of two (2) inches, whichever is greater, but no greater than four (4) inches.

(h) The pressure distribution laterals shall meet the following requirements:

(1) Each pressure distribution lateral shall connect directly to the manifold.

(2) The length of each lateral shall be calculated as: Lateral length ( $L_{lat}$ ) =  $(AB_L - 3)/2$

(3) No single pressure distribution lateral (from the manifold to the end cap) shall exceed fifty-five (55) feet in length.

(4) The diameter of the pressure distribution laterals shall be determined from Table XVII, as follows:

| Table XVII - Pressure Distribution Lateral Diameter for Elevated Sand Mounds* |                 |                                  |                                  |
|-------------------------------------------------------------------------------|-----------------|----------------------------------|----------------------------------|
| Lateral Length, L (ft.)                                                       | $L \leq 25$ ft. | $25 \text{ ft.} < L \leq 40$ ft. | $40 \text{ ft.} < L \leq 55$ ft. |
| Diameter (in.)                                                                | 1 in.           | 1 1/4 in.                        | 1 1/2 in.                        |

\*Pressure distribution lateral diameters for one-quarter (1/4) in. holes spaced at three (3) ft. on centers.

(5) Pressure distribution laterals shall have one (1) row of holes with three (3) feet on center spacing.

(6) The holes in the pressure distribution laterals shall be one-quarter (1/4) inch in diameter.

(7) The number of holes per lateral, including the hole in the end cap, shall be calculated as:

$$\text{Number of holes per lateral} = (L_{lat} - 1.50/3) + X;$$

where:  $X = 1$  if  $R < 0.5$ ; and  $X = 2$  if  $R \geq 0.5$ ; and

$R$  = the remainder from the mathematical equation.

(8) The first hole in each lateral shall be eighteen (18) inches from the center of the manifold.

(9) The last hole in the pressure distribution lateral before the end cap shall be at not less than eighteen (18) inches and not more than thirty-six (36) inches from the end cap.

(10) The end of each lateral shall be capped, and a one-fourth (1/4) inch hole shall be drilled in the upper half of the end cap.

(11) Burrs shall be removed from the edges of all holes and from the interiors of all laterals.

(12) All pressure distribution laterals shall be:

(A) at the same elevation; and

(B) level throughout their lengths.

(13) The pressure distribution laterals shall be placed in the aggregate bed with all holes, except the end cap holes, facing down.

(i) Pressure distribution laterals shall be laid out as shown in Figure 2, as follows:

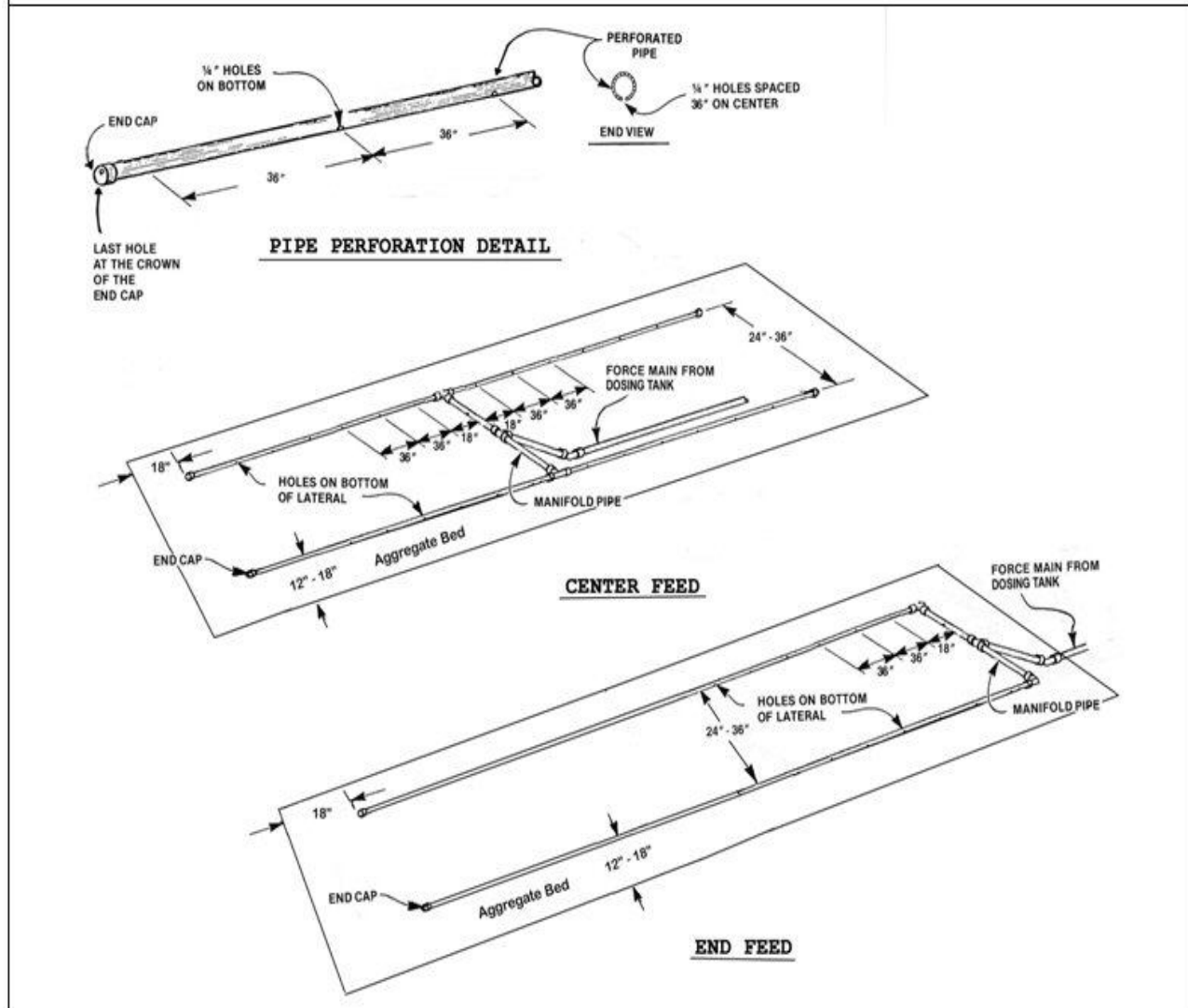
(1) The separation distance between pressure distribution laterals shall be not less than twenty-four (24) inches and not more than thirty-six (36) inches.

(2) Pressure distribution laterals shall be located not less than twelve (12) inches and not more than eighteen (18) inches from the sides of the aggregate bed along the length of the lateral.

(3) Pressure distribution laterals shall be attached to the manifold using nondirectional fittings designed to withstand the required pressures exerted on them.

(4) The end of each pressure distribution lateral with the hole in the end cap of the lateral shall be eighteen (18) inches from the end of the aggregate bed.

**Figure 2 – Plan View of Pressure Distribution Laterals in an Aggregate Bed of an Elevated Sand Mound**



(5) All joints, including the end caps, shall withstand the pressures exerted on them.

(j) Effluent pump selection for elevated sand mound on-site sewage systems shall be based on the manufacturer's pump curves for the required pump discharge rate at the total dynamic head imposed on the pump, as follows:

(1) The total discharge rate of the effluent pump shall be the total number of one-quarter (1/4) inch holes in all laterals (including the holes in the end caps) times one and twenty-eight hundredths (1.28) gallons per minute (gpm).

(2) The total dynamic head imposed on the pump shall be the sum of the following:

(A) The design head shall be three (3) feet.

(B) Plus friction loss in the effluent force main and manifold as determined by Tables X and XI in section 84(h) of this rule when plastic pipe is used.

(C) Plus the static head which is the difference in elevation from the effluent pump and the highest point in the effluent force main or the connection to the manifold, whichever is the highest elevation.

(Indiana State Department of Health; 410 IAC 6-10.1-90; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)

**410 IAC 6-10.1-91 Elevated sand mound on-site sewage systems: protection of the site**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 91. (a) Before the start of any construction on the property, the following areas must be staked out and protected from disturbance:

- (1) The soil absorption system area.
- (2) The dispersal area.
- (3) The subsurface drainage system area.
- (4) The set-aside area (if required in the approved plan).
- (5) Areas designated for future expansion (if required in the approved plan).

(b) Special caution shall be taken to prevent wheeled and tracked vehicles from compacting the area selected for placement of the elevated sand mound soil absorption system before, during, and after construction, especially during wet weather. Alteration of soil structure by movement of vehicles may be grounds for rejection of the site or the on-site sewage system, or both. (*Indiana State Department of Health; 410 IAC 6-10.1-91; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-92 Elevated sand mound on-site sewage systems: requirements for system construction**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 92. (a) Site preparation, tilling, construction, finish grading, and soil stabilization shall:

- (1) be performed in accordance with the approved plans; and
- (2) not be performed when the soil is frozen.

(b) Elevated sand mound soil absorption systems, as follows, 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:

- (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 depth of tilling, to assure that the plastic limit of the soil is not exceeded.

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

(*Indiana State Department of Health; 410 IAC 6-10.1-92; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

**410 IAC 6-10.1-93 Elevated sand mound on-site sewage systems: installation of the effluent force main**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 93. (a) To minimize disturbance of the basal area, the effluent force main must be brought above grade prior to entering the basal area and it must be extended upward through the INDOT Specification 23 sand to the point where it will enter the aggregate bed. The effluent force main shall be laid in the aggregate bed to the point of connection to the manifold.

(b) If the effluent force main is installed prior to tilling the elevated sand mound site, the following apply:

- (1) The effluent force main must be installed a minimum of sixteen (16) inches below existing grade from the outlet of the

dosing tank to the point where it comes up through the INDOT Specification 23 sand, outside of the basal area.

(2) The end of the effluent force main shall be fitted with a temporary vertical pipe extending at least three (3) feet above grade and temporarily capped during the construction process.

(3) The portion of the effluent force main which comes above existing grade must be bedded and stabilized properly as the sand is applied.

(c) If the effluent force main is installed after tilling of the site and placement of the INDOT Specification 23 sand, the following apply:

(1) The excavation must be hand dug through the INDOT Specification 23 sand.

(2) Dirt, sand, and debris must be prevented from entering the effluent force main during installation.

(3) The portion of the effluent force main that is installed in the INDOT Specification 23 sand must be properly bedded and stabilized.

*(Indiana State Department of Health; 410 IAC 6-10.1-93; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA)*

#### **410 IAC 6-10.1-94 Elevated sand mound on-site sewage systems: preparation of the site**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 94. (a) For all elevated sand mound sites, the following requirements shall be met for site preparation:

(1) Vegetation that would interfere with the soils evaluation, system layout, or system construction shall be cut and removed (not scraped) prior to installation without causing compaction.

(2) Trees shall be cut off at the ground surface and removed, with only stumps left in place. The department may require scarring of the tree stumps.

(3) Tree roots that protrude above the tilled surface shall be cut off and removed without causing compacted soil material.

(4) The portion of the elevated sand mound site receiving INDOT Specification 23 sand shall be tilled along the contour of the site to a depth of seven (7) inches to fourteen (14) inches with a moldboard or chisel plow, or a bulldozer with a ripper. A backhoe may be used to till sites with special considerations as noted in subsection (b). The department or local health department may require field supervision of tilling operations. The following requirements apply:

(A) If a chisel plow or a bulldozer with a ripper is used, tillage shall be across the site along the contour of the site.

(B) If a moldboard plow is used:

(i) it shall have at least two (2) bottoms and make only one (1) pass across the area, along the contour of the site; and

(ii) on sites with slopes greater than one-half percent (1/2%), the furrows shall be turned upslope.

(b) For wooded sites, and sites that limit the use of larger equipment, a backhoe may be used to till the site if the following requirements are met:

(1) The use of a backhoe shall be approved, in writing, by the department or local health department.

(2) Tilling shall be performed along the contour of the site.

(3) The surface of the ground shall be tilled with the chisel teeth fitted onto the backhoe bucket.

(4) The backhoe shall remain on untilled soil.

(5) If a moldboard plow, chisel plow, or bulldozer with a ripper is used to till the site, the provisions of subsection (a)(4) must be utilized.

(c) If compacted soil material is identified in the soil from the surface to a depth of twelve (12) inches, tilling of the soil shall be to a depth of at least two (2) inches below the bottom of the compacted soil material. If compacted soil material is identified in the soil at a depth greater than twelve (12) inches, the site is unsuitable for elevated sand mound construction, unless the compaction is broken up by a method approved by the department. *(Indiana State Department of Health; 410 IAC 6-10.1-94; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA; filed Aug 28, 2013, 10:21 a.m.: 20130925-IR-410120616FRA)*

#### **410 IAC 6-10.1-95 Elevated sand mound on-site sewage systems: placement of the sand on the basal area**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 95. (a) The basal area shall be covered using sand that meets the requirements listed in Table XVI in section 88(j) of this rule.

(b) INDOT Specification 23 sand shall be placed on the tilled area immediately after tilling the site to protect the tilled surfaces from damage by precipitation.

(c) The depth of the INDOT Specification 23 sand under the aggregate bed shall be at least twelve (12) inches (on sites with slopes greater than one-half percent (1/2%), the depth of INDOT Specification 23 sand beneath the downslope side of the aggregate bed will be greater than twelve (12) inches).

(d) INDOT Specification 23 sand shall be placed on the tilled surface as follows:

(1) On sites with slopes one-half percent (1/2%) or less, from the ends of the elevated sand mound.

(2) On sites with slopes greater than one-half percent (1/2%) and less than or equal to six percent (6%), from the ends or upslope edge of the elevated sand mound.

(e) At least six (6) inches of INDOT Specification 23 sand shall be kept between the vehicle tracks or tires and the tilled soil of the site.

(f) The depth of INDOT Specification 23 sand around the aggregate bed shall be the sum of:

(1) the depth of the sand under the aggregate bed; and

(2) the depth of the aggregate bed.

(g) A one (1) foot wide border of INDOT Specification 23 sand shall surround the aggregate bed, level with the top of the aggregate bed. (*Indiana State Department of Health; 410 IAC 6-10.1-95; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-96 Elevated sand mound on-site sewage systems: construction of the aggregate bed**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 96. (a) The surface of the INDOT Specification 23 sand at the sand/aggregate interface shall be smooth and free of ruts and depressions before the placement of the aggregate.

(b) The depth of aggregate in the aggregate bed from side to side and end to end shall be at least:

(1) six (6) inches below the pressure distribution laterals;

(2) plus the outside diameter of the pressure distribution laterals;

(3) plus two (2) inches above the pressure distribution laterals.

(c) The aggregate bed shall be covered with a barrier material which meets the minimum requirements of section 77 of this rule. The barrier material shall cover the aggregate bed from side to side and from end to end. (*Indiana State Department of Health; 410 IAC 6-10.1-96; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-97 Elevated sand mound on-site sewage systems: placement of the soil material and final grade**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 97. (a) If the ground surface along the perimeter of the INDOT Specification 23 sand was not tilled during preparation of the elevated sand mound site, the perimeter shall be prepared by tilling in accordance with the requirements of section 94 of this rule.

(b) The soil material cover shall:

(1) have a texture other than sand or loamy sand;

(2) be capable of sustaining plant growth; and

(3) be placed on the INDOT Specification 23 sand without causing compacted soil material.

(c) Prior to placement of the soil cover material, the surface of the INDOT Specification 23 sand shall be prepared by:

(1) maintaining a minimum grade of at least three-to-one (3:1); and

(2) preparing the surface of the INDOT Specification 23 sand so that it is smooth and free of ruts and depressions.

(d) The aggregate and sand of the elevated sand mound shall be covered with a minimum of twelve (12) inches of soil

material. An additional six (6) inches of that soil material, for a total of eighteen (18) inches, shall be placed over the center line of the long axis of the aggregate bed and crowned to promote surface runoff away from the elevated sand mound.

(e) Soil material shall be placed on the tilled portion of the sand perimeter and graded according to the requirements of subsection (f).

(f) The soil material cover shall have a minimum final grade on all sides of three-to-one (3:1).

(g) The elevated sand mound shall be seeded or sodded with grasses adapted to the area. If seeded, the elevated sand mound shall be protected by a cover of straw, burlap, or some other biodegradable material that will protect it against erosion. (*Indiana State Department of Health; 410 IAC 6-10.1-97; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-98 Abandonment of an on-site sewage system**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 98. (a) When the use of an on-site sewage system is discontinued, the following procedure must be followed for all tanks and electrical service:

(1) Electrical power must be disconnected at the source. All controls and panels must be removed.

(2) All above ground electrical lines (including buried service lines) that will not be used for other purposes must be removed.

(3) A licensed septic tank cleaner must pump all contents from all tanks in the on-site sewage system.

(4) The tanks must either be:

(A) removed or the lids crushed into the tanks and the holes or tanks must be backfilled with debris-free sand or other granular material, concrete, or soil material that is compacted to prevent settling. (If a sand mound is being abandoned, sand, aggregate and soil cover from the sand mound may be used for filling the tank or tanks); or

(B) filled with flowable fill.

(5) Properly grade and establish vegetative cover.

(b) The components of the soil absorption system may be left intact, if there are no plans to use the area for other purposes.

Vegetative cover must be maintained.

(c) If effluent has surfaced, those areas must be covered with hydrated lime followed by top soil and a vegetative cover.

(d) If components of the soil absorption system are to be removed, the following procedure must be used:

(1) A licensed septic tank cleaner must pump all contents from all distribution boxes in the on-site sewage system.

(2) Allow sufficient time after the on-site sewage system is taken out of service and the tanks pumped to make sure the entire soil absorption system is completely dry.

(3) A contractor must remove the distribution network, aggregate and sand (if any) from the site.

(4) The contractor must dispose of the materials at a licensed landfill.

(5) The site must be properly graded and a vegetative cover established.

(e) Written documentation of tank abandonment must be provided to the department and the local health department by the owner in the form of a receipt from the contractor. (*Indiana State Department of Health; 410 IAC 6-10.1-98; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

#### **410 IAC 6-10.1-99 Matters incorporated by reference**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19-3-4

Sec. 99. (a) Bulletin SE 11, "The Sanitary Vault Privy", 1986 Edition, is incorporated by reference as part of this rule. It is available at the department at 2 North Meridian Street, Indianapolis, Indiana 46204.

(b) NSF/ANSI Standard 40-2010 and Standard 46-2010a are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. Copies of the standards may be obtained by mailing a request to the National Sanitation Foundation, 789 North Dixboro Road, P.O. Box 130140, Ann Arbor, Michigan 48113-0140, or at:

[www.techstreet.com/cgi-bin/joint.cgi/nsf](http://www.techstreet.com/cgi-bin/joint.cgi/nsf)

(c) ASTM Standards C 923-08, C 990-09, C 1644-06, D 1527-99 (Reapproved 2005), D 1785-06, D 2241-09, D 2282-99 (Reapproved 2005), D 2661-11, D 2665-12, D 2680-01 (Reapproved 2009), D 2729-11, D 2751-05, D 3034-08, D 4355-07, D 4491-99a (Reapproved 2009), D 4533-11, D 4632-08, D 4751-04, D 6241-04 (Reapproved 2009), F 405-05, F 480-12, F 667-12, F 810-07, and F 891-10 are incorporated by reference as part of this rule. Two (2) copies of each standard are available for reference in the files of the department. ASTM standards may be obtained at:

<http://www.astm.org/Standard/index.shtml>

(d) AASHTO Standard M252-09 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at:

<http://www.transportation.org>

(e) NRCS Standard 606, September 2003 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. This standard may be obtained at:

<http://efotg.nrcs.usda.gov/references/public/AL/tg606.pdf>

(f) INDOT 2012 Standard Specifications, Section 904, Aggregates is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. The standard may be obtained at:

<http://www.in.gov/dot/div/contracts/standards/book/sep11/sep.htm>

(g) NEMA 250-2008 is incorporated by reference as part of this rule. Two (2) copies of the standard are available for reference in the files of the department. The standard may be obtained at [http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-66a368CFSWFQAodnnii\\_A](http://webstore.ansi.org/RecordDetail.aspx?sku=NEMA%20250-2008&source=google&adgroup=nema&gclid=CKe9-66a368CFSWFQAodnnii_A). (*Indiana State Department of Health; 410 IAC 6-10.1-99; filed Oct 19, 2012, 2:07 p.m.: 20121114-IR-410120157FRA*)

## **Rule 11. School-Age Child Care Facilities**

### **410 IAC 6-11-1 Purpose**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 1. This rule establishes minimum requirement for sanitation at school-age child care facilities. (*Indiana State Department of Health; 410 IAC 6-11-1; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2046; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

### **410 IAC 6-11-2 Definitions**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 2. As used in this rule:

(1) "Facility" means a school-age child care facility, except where clearly used in another context.

(2) "School-age child care facility" means that portion of a building used for school-age child care pursuant to IC 20-5-61 [*IC 20-5-61 was repealed by P.L.9-1991, SECTION 98, effective January 1, 1992.*], including the property upon which the building rests.

(3) "Site" means the property upon which the school-age child care facility rests.

(4) "Student" means a child five (5) to fourteen (14) years of age who is served by a school-age child care facility.

(*Indiana State Department of Health; 410 IAC 6-11-2; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2046; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA*)

**410 IAC 6-11-3 General sanitation**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 3. (a) Each site shall be maintained to protect the health of students and shall be free of any hazards or nuisances.

(b) No site shall be located nearer than five hundred (500) feet to any unhealthful condition.

(c) Each site shall be graded to prevent ponding and excessive inflow from surrounding areas.

(d) Each facility shall at all times be maintained in a clean, safe, and sanitary condition, and shall be in a good state of repair.

*(Indiana State Department of Health; 410 IAC 6-11-3; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2046; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-11-4 Facility sanitation**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 4. (a) All interior surfaces of a facility shall be easily cleanable, and of nontoxic durable construction.

(b) All light fixtures in a facility shall be shielded to protect the students from injury due to bulb breakage.

(c) Each facility shall have ventilation sufficient to provide adequate oxygen, a character of freshness in the air, and to remove exhaled air and undesirable odors during periods of student occupancy.

(d) Each facility shall be equipped with a heating system capable of maintaining a temperature of not less than sixty-eight degrees Fahrenheit (68° F), in all student areas under the severest of weather conditions. Portable space heaters are prohibited.

(e) Pipes, ducts, and radiators containing steam or hot water and located in student areas shall be shielded to protect the students from injury.

(f) All electrical wiring accessible to students shall be protected to prevent accidental shock. All electrical receptacles and switches accessible to students shall be shielded to prevent accidental shock.

(g) All furniture and equipment accessible to students shall be durable and easily cleanable, with rounded corners and edges, and otherwise protected as necessary to ensure safety.

(h) Drinking water shall be provided on each floor of a facility that is accessible to students. Drinking water facilities shall have impervious, easily cleanable surfaces and shall be kept clean and in a good state of repair. Drinking fountains, where provided, shall have a sanitary type guarded angle-stream jet head and an adjustable flow regulator. The outlet shall not be below the flood rim of the fixture.

(i) Each facility shall be provided with restrooms and sanitary facilities. There shall be at least one (1) separate, readily accessible restroom for each sex including the following:

(1) Restrooms shall be equipped with lavatories or other satisfactory handwashing facilities or such equipment must be available in an adjacent room through which the students must pass upon egress from the restroom.

(2) Handwashing facilities shall be supplied with hot and cold water under pressure. Hot water provided for the handwashing facilities shall be maintained between one hundred five degrees Fahrenheit (105° F) and one hundred twenty degrees Fahrenheit (120° F). An adequate supply of soap, and individual sanitary towels in dispensers, or heating units for automatic hand drying shall be provided convenient to all handwashing facilities. Common towels are not acceptable. If individual sanitary towels are provided, a suitable container for used towels shall also be provided.

(3) Restroom toilet fixtures shall be of the water-flushed type. Multiple seat toilets or makeshift trough arrangements shall not be provided even though they may be equipped for water flushing. All water closets shall be partitioned as necessary to provide individual stalls. Partitions shall have impervious, smooth-surfaced, easily cleanable surfaces. Wood surfaces are not acceptable. An adequate supply of toilet paper shall be provided in a dispenser at each water closet.

(4) Covered disposal facilities shall be provided in restrooms available to junior high school age girls and above.

(5) Restroom floors shall have easily cleanable, nonporous surfaces. Restroom walls and ceilings shall have smooth nonabsorbent, easily cleanable surfaces.

(6) Restroom entrances shall be screened to prevent viewing the restroom interior from the exterior. Restroom exterior doors

and operable windows shall be fly-proof and tight-fitting.

*(Indiana State Department of Health; 410 IAC 6-11-4; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2046; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-11-5 Food service**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 5. All rooms, equipment, and utensils used for the storage, preparation, and serving of food, or for washing of food equipment and utensils at a facility, shall be constructed and operated in accordance with 410 IAC 7-15.1 [410 IAC 7-15.1 was repealed filed Mar 30, 2000, 3:51 p.m.: 23 IR 1984.]. *(Indiana State Department of Health; 410 IAC 6-11-5; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2047; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-11-6 Water supply**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 6. A safe, potable supply of water under pressure, shall be provided at the facility at all times during periods of student occupancy. Where a public water supply is not available, a properly located and constructed private water supply shall be utilized. The potable water supply shall be maintained in a good state of repair. There shall be no direct physical connection, existing or potential, between a potable water supply system and an unsafe water supply system used for fire protection, lawn sprinkling, toilet flushing, or other nonpotable use. *(Indiana State Department of Health; 410 IAC 6-11-6; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2047; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-11-7 Sewage disposal**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 7. Facility sewers, sewage treatment and disposal systems shall be constructed, operated, and maintained to transmit and dispose of peak and average daily sewage flows without creating a health hazard, nuisance, surface water pollution, or groundwater pollution. Facility sewers, sewage treatment, and disposal systems shall also be located to prevent the possibility of contaminating the facility potable water supply. *(Indiana State Department of Health; 410 IAC 6-11-7; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2047; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

**410 IAC 6-11-8 Refuse disposal**

Authority: IC 16-19-3-4

Affected: IC 16-41

Sec. 8. Refuse generated at a facility shall be properly collected pending disposal. Refuse shall be stored in fly-tight, water-tight containers. Refuse containers shall be kept in a sanitary condition, and shall be kept closed when not in use. Refuse containers shall be located on a concrete base, or else stored on racks with at least eight (8) inches clearance above the ground. Where service permits, approved hopper-type containers should be substituted for refuse cans. The area around refuse storage containers shall be kept clean and free of litter. *(Indiana State Department of Health; 410 IAC 6-11-8; filed Jun 12, 1989, 9:45 a.m.: 12 IR 2047; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; readopted filed May 22, 2007, 1:44 p.m.: 20070613-IR-410070141RFA; readopted filed Sep 11, 2013, 3:19 p.m.: 20131009-IR-410130346RFA)*

## **Rule 12. Plan Review, Construction Permits, and Fees for Services**

### **410 IAC 6-12-0.5 Applicability**

Authority: IC 16-19-3-4; IC 16-19-3-5; IC 16-19-5-1

Affected: IC 16-19

Sec. 0.5. The definitions in this rule apply throughout this rule. (*Indiana State Department of Health; 410 IAC 6-12-0.5; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA*)

### **410 IAC 6-12-1 "Absorption field" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5; IC 16-19-5-1

Affected: IC 16-19

Sec. 1. "Absorption field" means a:

- (1) system of open-jointed tiles or perforated pipes laid in soil;
- (2) series of trenches; or
- (3) bed of sand, gravel, and soil;

into which the effluent from a septic tank or other sewage treatment devices is pumped or flows by gravity for absorption into the soil. (*Indiana State Department of Health; 410 IAC 6-12-1; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2219; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA*)

### **410 IAC 6-12-2 "Board" defined (Repealed)**

Sec. 2. (*Repealed by Indiana State Department of Health; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821*)

### **410 IAC 6-12-3 "Commissioner" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 3. "Commissioner" means the commissioner of the department or his or her duly authorized representative. (*Indiana State Department of Health; 410 IAC 6-12-3; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2219; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA*)

### **410 IAC 6-12-3.1 "Community wastewater disposal facility" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 3.1. "Community wastewater disposal facility" means a commercial on-site wastewater disposal facility that will serve two (2) or more properties. (*Indiana State Department of Health; 410 IAC 6-12-3.1; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA*)

### **410 IAC 6-12-3.2 "Department" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 3.2. "Department" means the Indiana state department of health or its authorized representative. (*Indiana State Department of Health; 410 IAC 6-12-3.2; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA*)

**410 IAC 6-12-4 "Person" defined**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 4. "Person" means any of the following:

- (1) An individual.
- (2) A partnership.
- (3) A copartnership.
- (4) A corporation.
- (5) A firm.
- (6) A company.
- (7) An association.
- (8) A society.
- (9) A holding company.
- (10) A trustee.
- (11) A school corporation.
- (12) A school city.
- (13) A school town.
- (14) A school district.
- (15) Any unit of government.
- (16) Any other legal entity, its or their successors or assigns, or agent of the aforesaid.

*(Indiana State Department of Health; 410 IAC 6-12-4; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2220; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-5 "Site evaluation" defined (Repealed)**

Sec. 5. *(Repealed by Indiana State Department of Health; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821)*

**410 IAC 6-12-6 "Soil profile analysis" defined (Repealed)**

Sec. 6. *(Repealed by Indiana State Department of Health; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821)*

**410 IAC 6-12-7 Permit requirement**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 12-17.2; IC 16-19; IC 16-41

Sec. 7. No person shall cause or allow the construction, installation, or modification of any facility described hereafter, without having a valid construction permit issued in accordance with this rule. Construction permits are required for the following:

- (1) Agricultural labor camps subject to IC 16-41-26.
- (2) Child caring institutions, day nurseries, and children's group homes subject to IC 12-17.2.
- (3) Mobile home parks subject to IC 16-41-27.
- (4) Recreational vehicle campgrounds subject to IC 16-19-3-4 and 410 IAC 6-7.1.
- (5) Schools subject to IC 16-41-21.
- (6) Youth camps subject to IC 16-19-3-4 and 410 IAC 6-7.2.

*(Indiana State Department of Health; 410 IAC 6-12-7; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2220; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 818; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-8 Application for construction permit**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19; IC 25-21.5-9-4

Sec. 8. (a) An application for a permit to construct any facility subject to section 7 of this rule shall be made to the department on forms provided by the department. Application for a construction permit shall be made at least ninety (90) days before the date construction of the facility is to commence. An application shall be considered complete only when the form is completed in its entirety, including all supplemental information required or requested by the department. An application for a permit shall, at a minimum, include the following:

- (1) The signature of the applicant or his or her designated agent.
- (2) The name, business address, and business telephone number of the owner. For corporate owners, the name of the corporation, the name of its designated agent, and that agent's business address and business telephone number shall suffice.
- (3) One (1) set of detailed construction plans and specifications certified and sealed by an engineer or architect currently registered in Indiana, drawn to scale, and having sufficient clarity to be reproduced to create legible microfilm. As provided in IC 25-21.5-9-4, registered land surveyors may only certify and seal plans for gravity sanitary sewers, storm sewers, and tile drains.
- (4) A map or other documentation showing the location of the property involved.
- (5) A plot plan, drawn to scale, showing the following:
  - (A) The location of the proposed facility with respect to property lines.
  - (B) The existing and proposed:
    - (i) structures;
    - (ii) roads;
    - (iii) parking lots;
    - (iv) sewers;
    - (v) sewage disposal systems;
    - (vi) water wells; and
    - (vii) water lines;on the property.

For those facilities that will be served by a commercial on-site wastewater disposal system that includes an absorption field, the plot plan shall also show site topography with contours established at intervals of two (2) feet or less.

- (6) The fee for plan review required by section 17 of this rule.
- (7) The name, business address, and business telephone number, in writing, of the registered engineer or architect who certified and sealed the construction plans and specifications required by subdivision (3).
- (8) For those facilities that will be served by a commercial on-site wastewater disposal system that includes an absorption field, a soil profile analysis conducted by a soil scientist currently registered in Indiana for the soils observed in the area of the proposed absorption field. Said analysis shall include all information required by 410 IAC 6-10.
- (9) Wastewater characteristics and calculations used to estimate wastewater flow on the peak day, in gallons, to be disposed of. If more than one (1) type of facility is involved in the project, wastewater characteristics and calculations used to estimate wastewater flow, in gallons, from each facility on the peak day must be submitted.
- (10) A summary delineating, for each diameter of pipe utilized, the estimated total length of water line, sanitary sewer, and sewage force main to be installed.
- (11) All additional information requested by the department to substantiate that the proposed facility can reasonably be expected to conform to the requirements of laws and rules applicable to the facility, without causing a:
  - (A) health or safety hazard;
  - (B) nuisance;
  - (C) surface water pollution; or
  - (D) ground water pollution.

(b) Requests for additional substantiating information made under subsection (a)(11) shall be addressed to the registered engineer or architect who certified and sealed the construction plans and specifications in compliance with subsection (a)(3).

*(Indiana State Department of Health; 410 IAC 6-12-8; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2220; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 819; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-9 Right of entry**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 9. The department or the local health department's authorized representative may enter upon public or private property at reasonable times and upon presentation of credentials to:

- (1) inspect facilities, equipment, or records;
- (2) investigate allegations;
- (3) determine topography, elevations, or soil characteristics;
- (4) conduct tests or collect samples for the purpose of obtaining information necessary to the issuance of a permit under this rule; or
- (5) determine whether any person is subject to, or in violation of, this rule or any permit or order issued under this rule.

*(Indiana State Department of Health; 410 IAC 6-12-9; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2221; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 820; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-10 Official's signature; effective date**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 10. Construction permits shall be:

- (1) signed by the commissioner on behalf of the department; and
- (2) considered issued as of the date of mailing.

*(Indiana State Department of Health; 410 IAC 6-12-10; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2221; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 820; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-11 Permit conditions**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 11. The department may specify in its construction permits any limitations, terms, or conditions necessary to provide a functional, easily operated, enduring facility or to prevent a health or safety hazard, nuisance, surface water pollution, or ground water pollution. In addition, all construction permits shall contain the following requirements, not necessarily verbatim:

- (1) The permit shall expire on the last day of the twelfth month following the month of permit issuance, unless the applicant has started construction of the facility on or before the date of permit expiration.
- (2) That all necessary local permits and approvals shall be obtained before construction is begun.
- (3) That any proposed changes, alterations, or additions to the approved facilities be submitted to the department for review and approval prior to the start of construction that will effect the proposed changes, alterations, or additions.
- (4) That, if pollution, health hazards, or nuisance conditions occur that are attributable to the facility permitted, immediate corrective action shall be taken by the owner.
- (5) That the permittee notify the department and the local health department at least seven (7) days before construction of the approved facilities is to commence.

*(Indiana State Department of Health; 410 IAC 6-12-11; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2221; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 820; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-*

410100261RFA)

**410 IAC 6-12-12 Standards for issuance**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 12. The department may reject an application for permit to construct a facility unless the applicant has submitted the following:

- (1) All documentation and fees required by sections 8(a) and 17 of this rule.
- (2) Evidence that the facility can be constructed, modified, or installed and operated in such a manner that it will not violate any law or rule applicable to the facility, or any other applicable sanitation, health, siting, or pollution control rules or ordinances existing at the time of application.

*(Indiana State Department of Health; 410 IAC 6-12-12; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2222; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 820; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-13 Construction permit revocations and modifications**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 13. A facility construction permit may be revoked or modified by the department for any of the following causes:

- (1) Violation of a law or rule applicable to the facility, or any other applicable sanitation, health, siting, or pollution control rules or ordinances existing at the time of application.
- (2) Violation of any limitation, term, or condition contained in the construction permit.
- (3) Failure to disclose all facts relevant to construction and use of the facility that might adversely impact health, surface water, or ground water.
- (4) Any misrepresentation made to obtain the construction permit.
- (5) Any other change, situation, or activity relating to use of the facility that, in the judgment of the department, is not consistent with the purposes of this rule or a law or rule applicable to the facility.

*(Indiana State Department of Health; 410 IAC 6-12-13; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2222; readopted filed Jul 11, 2001, 2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 820; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

**410 IAC 6-12-14 Denial of an application for construction permit**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19

Sec. 14. An application for facility construction permit may be denied by the department for any of the following causes:

- (1) Any misrepresentation made in the application.
- (2) Failure of the owner, or the engineer or architect who certified and sealed the construction plans and specifications, to respond to a request for revised plans and specifications or additional information made under section 8 of this rule, within six (6) months of receiving the request.
- (3) Failure to show that the facility can be:
  - (A) constructed;
  - (B) operated;
  - (C) maintained; or
  - (D) abandoned;

in compliance with any law or rule applicable to the facility.

*(Indiana State Department of Health; 410 IAC 6-12-14; filed Jul 12, 1991, 5:00 p.m.: 14 IR 2222; readopted filed Jul 11, 2001,*

2:23 p.m.: 24 IR 4234; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)

#### **410 IAC 6-12-15 Petitions for review (Repealed)**

Sec. 15. *(Repealed by Indiana State Department of Health; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821)*

#### **410 IAC 6-12-16 Fees (Repealed)**

Sec. 16. *(Repealed by Indiana State Department of Health; filed Apr 16, 1996, 4:10 p.m.: 19 IR 2285)*

#### **410 IAC 6-12-17 Fees**

Authority: IC 16-19-3-4; IC 16-19-3-5

Affected: IC 16-19; IC 16-21-2; IC 16-28-1; IC 16-41-27

Sec. 17. Fees shall be assessed for plan review and related services rendered by the department, in accordance with the following:

(1) For each plan review conducted for the following, the schedule of fees is:

(A) A commercial on-site wastewater disposal facility under 410 IAC 6-10: two hundred dollars (\$200).

(B) A community wastewater disposal facility under 410 IAC 6-10: seven hundred dollars (\$700).

(C) An ambulatory outpatient surgery center under IC 16-21-2 and 410 IAC 15.2: four hundred fifty dollars (\$450).

(D) A health facility under IC 16-28-1 and 410 IAC 16.2: one hundred fifty dollars (\$150).

(E) A new hospital or hospital addition under IC 16-21-2 and 410 IAC 15: five hundred fifty dollars (\$550).

(F) Remodeling of an existing hospital under IC 16-21-2 and 410 IAC 15: three hundred dollars (\$300).

(G) A mobile home park or mobile home park addition under IC 16-41-27 and this rule: three hundred dollars (\$300).

(2) For projects that include both a commercial on-site wastewater disposal facility and a facility subject to subdivision (1)(C) through (1)(F), the total fee for plan review shall be the larger of the two (2) fees applicable to that project under subdivision (1).

(3) No additional fee shall be assessed for review of revised plans for the same project.

(4) Before a service enumerated in subdivision (1) can proceed, the requisite fee must have been received. Only a check, a money order, or an electronic transfer of funds is acceptable. All checks or money orders shall be made payable to the "Indiana State Department of Health". Electronic transfer of funds will be acceptable only when the department is capable of receiving such transfers. Only that portion of a payment made in excess of the requisite fee is refundable.

*(Indiana State Department of Health; 410 IAC 6-12-17; filed Oct 18, 2004, 1:15 p.m.: 28 IR 821; readopted filed Jul 15, 2010, 12:12 p.m.: 20100728-IR-410100261RFA)*

#### **Rule 13. Tanning Facility Sanitation and Safety (Transferred)**

*NOTE: Transferred from the Indiana State Department of Health (410 IAC 6-13) to the State Board of Cosmetology Examiners (820 IAC 5-1) by P.L.142-1995, SECTION 33, effective July 1, 1995.*

#### **Rule 14. Railroad Mobile Camps**

##### **410 IAC 6-14-1 "Camp car" defined**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 1. As used in this rule, "camp car" means a railroad car, trailer, or other mobile shelter in a mobile camp that is inhabited by railroad maintenance of way employees, or contract employees, for the normal activities of daily living. *(Indiana State Department of Health; 410 IAC 6-14-1; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

**410 IAC 6-14-2 "Department" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 2. As used in this rule, "department" means the means the Indiana state department of health. (*Indiana State Department of Health; 410 IAC 6-14-2; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-3 "Easily cleanable" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 3. As used in this rule, "easily cleanable" means:

(1) readily accessible;

(2) impervious; and

(3) with exposed surfaces that are sufficiently smooth that residue can be effectively removed using normal cleaning methods.

(*Indiana State Department of Health; 410 IAC 6-14-3; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-4 "Food grade" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 4. As used in this rule, "food grade" means constructed of materials that are as follows:

(1) Smooth.

(2) Nontoxic.

(3) Nonabsorbent.

(4) Easily cleanable.

(5) Easily sanitized.

(6) Heat-resistant.

(7) Corrosion-resistant.

(8) Impact-resistant.

(9) Abrasion-resistant.

(*Indiana State Department of Health; 410 IAC 6-14-4; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-5 "Health officer" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 5. As used in this rule, "health officer" means:

(1) the health officer of a local health department; or

(2) his or her authorized representative.

(*Indiana State Department of Health; 410 IAC 6-14-5; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-6 "Mobile camp" defined**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10-1; IC 16-19-3

Sec. 6. As used in this rule, "mobile camp" has the meaning set forth in IC 8-9-10-1(a). (*Indiana State Department of Health; 410 IAC 6-14-6; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-7 "Refuse" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 7. As used in this rule, "refuse" means all solid wastes, including:

- (1) garbage;
- (2) rubbish; and
- (3) ashes;

but excluding body wastes. (*Indiana State Department of Health; 410 IAC 6-14-7; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-8 "Sewage" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 8. As used in this rule, "sewage" means all:

- (1) body waste; and
- (2) water-carried waste derived from ordinary living processes.

(*Indiana State Department of Health; 410 IAC 6-14-8 ; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-9 "Toilet" defined**

Authority: IC 16-19-3-4.4

Affected: IC 16-19-3

Sec. 9. As used in this rule, "toilet" means a device provided for individual convenience in the sanitary disposal of body wastes. (*Indiana State Department of Health; 410 IAC 6-14-9; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-10 Administration; required notifications; fees**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3; IC 16-20-1-2; IC 16-20-1-19; IC 16-22-8-6; IC 16-22-8-34

Sec. 10. (a) This rule shall be enforced by local health officers under:

- (1) IC 16-20-1-19; and
- (2) IC 16-22-8-34(a)(22).

(b) A railroad company that houses maintenance of way employees in a mobile camp shall:

- (1) not later than two (2) business days after its employees arrive at a location, notify the local health department with jurisdiction in the area in which the mobile camp is located of the existence of the mobile camp; and
- (2) request and permit inspection by an authorized representative of the local health department to ensure that the conditions of the camp cars are:

- (A) safe;
- (B) sanitary;
- (C) healthful; and
- (D) in compliance with this rule.

(c) An inspection fee necessary to cover all the expenses incurred in the process of conducting inspections of a mobile camp shall be paid by the railroad company operating the mobile camp. The inspection fee shall be paid to the:

- (1) local health department under IC 16-20-1-2; or
- (2) municipal corporation under IC 16-22-8-6;

before initiation of the inspection

- (d) The mobile camp owner or operator shall immediately notify the local health officer of any suspected communicable or

contagious disease within the mobile camp. (*Indiana State Department of Health; 410 IAC 6-14-10; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-11 Mobile camp sites**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 11. (a) Mobile camps shall be located:

- (1) on well-drained sites;
- (2) in areas free from flooding or ponded water; and
- (3) in areas free of any other conditions that will cause or contribute to a health hazard.

(b) Every camp car in a mobile camp used for sleeping shall:

- (1) be equipped with lavatories and body washing facilities; and
- (2) have a:

(A) potable water supply; and

(B) means of sewage or excreta collection and disposal;

that comply with this rule.

(c) Camp cars shall be located such that their floors are reasonably level. (*Indiana State Department of Health; 410 IAC 6-14-11; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-12 Physical facilities**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 12. (a) Camp cars shall be structurally sound, maintained in a clean, safe, and sanitary condition, and in good repair. In addition, camp car:

- (1) exterior walls must be free of cracks and holes;
- (2) interior walls must have easily cleanable, smooth, hard surfaces;
- (3) floors and floor coverings must be easily cleanable;
- (4) exterior doors, and any operable windows, shall be fly-proof and tight-fitting;
- (5) doors must have latches or doorknobs; and
- (6) ceilings must be a minimum of seven (7) feet from the floor.

(b) Adequate arrangements for storing of clothing and personal effects for each occupant shall be provided.

(c) Each habitable room of a camp car shall have at least one (1) window or skylight opening directly outdoors. The:

(1) aggregate glazed area of each habitable room's openings must be at least ten percent (10%) of the room's useable floor area; and

(2) total openable area shall be at least forty-five percent (45%) of the minimum required glazed area.

Windows and skylights shall fit tightly in their frames, and the operable portion must open easily and be fitted with a latching mechanism.

(d) Every camp car occupied between June 1 and September 30 must be provided with an air-conditioning system capable of maintaining a temperature of seventy-eight (78) degrees Fahrenheit or less.

(e) Camp car ventilation shall be sufficient to:

(1) provide adequate oxygen; and

(2) remove exhaled air and undesirable odors during periods of occupancy.

Every camp car must be provided with a mechanical ventilation capable of replacing the air at least six (6) times per hour. Any rooms or other area of a camp car where toxic gases or odors are produced shall be mechanically exhausted to the outside.

(f) An operating mechanical exhaust device is required in rooms that have toilet and body washing facilities, capable of replacing the air in the facility at least six (6) times per hour.

(g) Any camp car that is occupied between October 1 and May 30 shall have operable heating equipment of capacity adequate

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to maintain a temperature of at least sixty-eight (68) degrees Fahrenheit in each habitable room. A heating device provided for cooking does not satisfy this requirement.

(h) No portable heaters other than those operated by electricity may be utilized or provided. Unvented kerosene heaters and catalytic type heaters are prohibited.

(i) At least twenty (20) foot-candles of light must be provided throughout all habitable rooms of a camp car.

(j) Toilet and body washing facilities shall be:

(1) screened;

(2) partitioned; or

(3) otherwise configured;

to prevent viewing of the interior when the entrance door is open.

(k) Entrances to rooms that have toilet or bathing facilities shall be fitted with self-closing doors.

(l) Restrooms shall be equipped with lavatories or other hand washing facilities, or such equipment shall be installed in an adjacent room through which the users must pass upon egress from the restroom.

(m) An adequate supply of soap and individual sanitary towels in dispensers, or other approved hand drying devices, shall be provided convenient to all hand washing facilities. Common towels are not acceptable. If individual sanitary towels are provided, a suitable container for used towels shall also be provided.

(n) An adequate supply of water, under pressure, shall be provided at all hand washing facilities.

(o) The following shall be kept clean and in good repair:

(1) Lavatories.

(2) Soap dispensers.

(3) Hand drying devices.

(4) Toilets.

(5) Body washing facilities.

(6) All related fixtures.

(p) Body washing facilities shall be supplied with hot and cold water, under pressure. Hot water provided for body washing facilities shall be maintained at or between one hundred five (105) degrees Fahrenheit and one hundred twenty (120) degrees Fahrenheit. An automatic temperature control device, approved by the department, shall be provided to automatically control the temperature of hot water supplied to body washing facilities so that it cannot exceed one hundred twenty (120) degrees Fahrenheit. Either mixing type faucets or automatic mixing devices shall be utilized to control the mix of hot and cold water supplied to each body washing facility.

(q) Toilets shall:

(1) have open front seats;

(2) be made of impervious material;

(3) be partitioned as necessary to provide individual stalls.

Stall partitions shall extend to a height of not less than five and one-half (5 1/2) feet from the floor, and the bottom shall be not more than one (1) foot above the floor. Stall partitions shall be of smooth surface, impervious, easily cleanable material. Wood surfaces are not acceptable.

(r) An adequate supply of toilet paper shall be provided in a dispenser at each toilet.

(s) Covered disposal facilities shall be provided in those restrooms provided for use by female employees.

(t) Based upon the number of employees served, toilets, urinals, hand washing, and body washing facilities shall be provided as follows:

| Number of Employees | Body Washing<br>Facilities | Lavatories | Toilets | Urinals* |
|---------------------|----------------------------|------------|---------|----------|
| 1-10                | 1                          | 2          | 1       | 1        |
| 11-25               | 2                          | 3          | 2       | 1        |
| 26-49               | 4                          | 5          | 3       | 2        |
| 50-74               | 6                          | 6          | 4       | 2        |
| 75-100              | 8                          | 7          | 5       | 3        |
| Over 100            | **                         | ***        | ****    | *****    |

\*A toilet may be substituted for a urinal.

\*\*Two (2) additional body washing facilities for each twenty-five (25) employees, or fraction thereof.

\*\*\*Two (2) additional lavatories for each twenty-five (25) employees, or fraction thereof.

\*\*\*\*One (1) additional toilet for each twenty-five (25) employees, or fraction thereof.

\*\*\*\*\*One (1) additional urinal for each fifty (50) employees, or fraction thereof.

*(Indiana State Department of Health; 410 IAC 6-14-12; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

#### **410 IAC 6-14-13 Cooking facilities**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3; IC 16-42

Sec. 13. Mobile camps, and the camp cars therein, shall comply with IC 16-42-1, IC 16-42-2, IC 16-42-5, and 410 IAC 7-24, where applicable. *(Indiana State Department of Health; 410 IAC 6-14-13; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

#### **410 IAC 6-14-14 Sleeping facilities**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 14. (a) At least eighty (80) square feet of floor space per occupant must be provided in rooms used for sleeping. There shall be not more than four (4) persons housed in a camp car at one (1) time.

(b) If bedding is provided by the mobile camp owner or operator, it shall be clean and washed before use by a new occupant.

(c) Foam bed mattresses shall be provided with easily cleanable mattress covers.

(d) Beds shall be arranged so:

(1) the heads of the sleepers are at least six (6) feet apart; and

(2) there are at least thirty (30) inches between the sides of the beds.

(e) Vertical separation between the top of the lower mattress of a double-deck bunk and the upper bunk shall be a minimum of twenty-seven (27) inches. The vertical separation between the top of the upper mattress and the ceiling shall be a minimum of thirty-six (36) inches.

(f) Triple-deck and quadruple-deck bunk beds are prohibited.

(g) Each camp car used for sleeping at a mobile camp must be equipped with a functioning weather radio that meets standard CEA-2009, "Receiver Performance Specification for Public Alert Receivers", with the following features:

(1) Tone alarm activation.

(2) Specific alert message encoding or similar technology.

*(Indiana State Department of Health; 410 IAC 6-14-14; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

#### **410 IAC 6-14-15 Potable water supply**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 15. (a) Potable water shall always be available for culinary and drinking purposes.

(b) A source of drinking water shall be located in, or within two hundred (200) feet of, each camp car. An adequate supply of potable bottled water will meet this requirement.

(c) There shall be no direct physical connection between:

(1) a mobile camp water supply; and

(2) any source of pollution through which the camp water supply might become contaminated.

(d) If single-use drinking cups are provided, an adequate supply shall be maintained at each potable water dispenser.

(e) Common drinking cups are not permitted.

(f) Drinking water facilities shall be:

- (1) constructed of impervious, easily cleanable materials; and
- (2) kept clean and in a good state of repair.

(g) Devices shall be installed to protect against backflow and back-siphonage at all fixtures and equipment where an air gap at least twice the diameter of the water supply inlet is not provided between the water supply inlet and the fixture's flood level rim. A hose shall not be attached to a faucet unless a backflow prevention device is installed. *(Indiana State Department of Health; 410 IAC 6-14-15; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

#### **410 IAC 6-14-16 Nonpotable water supply**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 16. (a) The water supply and distribution system must be capable of maintaining water pressure at not less than twenty (20) pounds per square inch (psi) during periods of peak water demand. The water supply shall have capacity to meet total daily water demands.

(b) There shall be no direct physical connection between:

- (1) a mobile camp water supply; and
- (2) any source of pollution through which the camp water supply might become contaminated.

(c) Water supply facilities shall be:

- (1) constructed of impervious, easily cleanable materials; and
- (2) kept clean and in a good state of repair.

(d) Devices shall be installed to protect against backflow and back-siphonage at all fixtures and equipment where an air gap at least twice the diameter of the water supply inlet is not provided between the water supply inlet and the fixture's flood level rim. A hose shall not be attached to a faucet unless a backflow prevention device is installed.

(e) Hoses used to fill water tanks shall be:

- (1) constructed of food grade materials; and
- (2) capped at both ends when not in use.

*(Indiana State Department of Health; 410 IAC 6-14-16; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

#### **410 IAC 6-14-17 Sewage and excreta disposal**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10-1; IC 13-18-12; IC 16-19-3

Sec. 17. (a) Toilet facilities shall be located pursuant to IC 8-9-10-1.

(b) No person shall:

- (1) throw;
- (2) run;
- (3) drain;
- (4) seep; or
- (5) otherwise dispose;

into any of the surface waters or ground waters of this state, or cause, permit, or suffer to be thrown, run, drained, allowed to seep, or otherwise disposed into such waters, any organic or inorganic matter that would cause or contribute to a health hazard or water pollution.

(c) All sewage or excreta generated, including gray water, shall be disposed of:

- (1) via a public sewer; or
- (2) by a wastewater management business licensed under IC 13-18-12.

(d) Sewage and excreta holding tanks must be pumped before the accumulated waste exceeds ninety percent (90%) of the tank's liquid holding capacity. *(Indiana State Department of Health; 410 IAC 6-14-17; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA)*

**410 IAC 6-14-18 Refuse disposal**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 18. (a) Refuse shall be stored in covered, fly-tight, watertight containers. Refuse can liners (also known as trash bags) constructed of plastic, paper, or similar material may not be stored outside a camp car.

(b) All refuse containers must be kept in a sanitary condition.

(c) Mobile camps and the camp cars shall be kept clean and free of litter.

(d) Refuse shall be collected, stored, and disposed of in such a manner that it will not create:

(1) fly breeding;

(2) rodent harborage;

(3) an odor or smoke nuisance; or

(4) a health, fire, or safety hazard.

(e) Refuse shall not be burned except at an approved disposal site. (*Indiana State Department of Health; 410 IAC 6-14-18; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-19 Electrical facilities**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 19. (a) All camp car electrical:

(1) wiring;

(2) switches; and

(3) lighting fixtures;

shall be installed and maintained in a safe condition.

(b) Electrical receptacles shall have wiring and circuit breakers or fuses sized to conform to the amperage of the receptacle they supply.

(c) When located in wet places or outside a camp car, the following shall be weatherproof:

(1) Electrical switches.

(2) Circuit breakers.

(3) Receptacles.

(4) Control equipment.

(5) Metering devices.

(d) Electrical receptacles shall:

(1) be grounded; and

(2) not have an open neutral, open hot conductor, or reverse polarity.

(e) Splices in electrical wires in accessible locations shall be made using approved junction boxes.

(f) All light fixtures shall be covered or shielded to protect against injury resulting from bulb breakage.

(g) All electrical receptacles and switches shall be shielded to prevent electric shock.

(h) Unshielded bare electrical wires:

(1) are prohibited; and

(2) shall be wrapped or otherwise covered to prevent electric shock.

(i) All restrooms and shower/locker room electrical receptacles provided for connection of personal grooming equipment shall be protected by ground fault circuit interrupters to prevent electric shock. (*Indiana State Department of Health; 410 IAC 6-14-19; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-20 Gas facilities**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 20. (a) When gas is used, a properly installed system of gas lines and appurtenances that provides gas service adequate for safe operation of appliances and equipment shall be provided.

(b) All gas outlet risers, regulators, meters, valves or other exposed equipment shall be protected by proper location or other means from mechanical damage by vehicles or other causes. (*Indiana State Department of Health; 410 IAC 6-14-20; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-21 Fire protection and safety**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 21. (a) Each camp car shall be equipped with a minimum of one (1) 4-A, 60-B:C, ten (10) pound, multipurpose, dry chemical, pressure fire extinguisher that is readily accessible and maintained in an operable condition.

(b) Camp car hallways and exits from camp cars must be maintained free of obstructions.

(c) Each camp car used for sleeping shall be equipped with a UL listed smoke detector that is kept clean and tested monthly.

(d) A first aid kit that meets the requirements of American National Standards Institute standard Z308.1-2003 shall be available at each mobile camp. (*Indiana State Department of Health; 410 IAC 6-14-21; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-22 Special hazards**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 22. (a) No condition shall be created in any camp car that is not conducive to health and safety.

(b) Camp cars shall be kept free of insect and rodent infestations.

(c) Neither employees nor visitors may use tobacco in any form in a camp car.

(d) No:

(1) flammable;

(2) explosive;

(3) toxic;

(4) volatile;

(5) acidic;

(6) caustic;

(7) radioactive; or

(8) otherwise hazardous;

liquid, gas, or chemical shall be used or stored in a camp car except small quantities needed for car maintenance, cleaning, sanitizing, or control of insects or rodents. Such materials shall be used and stored in full compliance with the manufacturer's recommendations as shown on the container label. Additionally, such materials shall be stored in cabinets or in similarly enclosed devices used for no other purpose.

(e) Poisonous or toxic materials shall not be used in a way that contaminates:

(1) food;

(2) food service equipment; or

(3) food utensils.

(*Indiana State Department of Health; 410 IAC 6-14-22; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-23 Departure**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 23. Excepting new construction or installations, after departure the property upon which a mobile camp existed shall

be restored to its original condition before the arrival of the mobile camp. (*Indiana State Department of Health; 410 IAC 6-14-23; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-24 Mobile camp inspections**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3; IC 16-22-8-6

Sec. 24. (a) The department, the local health officer, or a municipal corporation under IC 16-22-8-6 may enter a mobile camp or a camp car therein, at reasonable times and upon presentation of credentials, to do any of the following:

- (1) Inspect facilities, equipment, or records.
- (2) Investigate allegations, conduct tests, collect samples, or take photographs.
- (3) Obtain information necessary to the issuance of a permit under this rule.
- (4) Determine whether any person is subject to, or in violation of, this rule or a permit issued under this rule.

(b) The local health officer or a municipal corporation under IC 16-22-8-6 may conduct either:

- (1) independent inspections of a mobile camp without the presence of a railroad company or union representative; or
- (2) joint inspections of a mobile camp with the presence of a railroad company and a union representative of each craft of employees working for the railroad company.

(c) A local health department shall submit a copy of its completed report of inspection for a railroad mobile camp to the railroad company. (*Indiana State Department of Health; 410 IAC 6-14-24; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

**410 IAC 6-14-25 Incorporation by reference**

Authority: IC 16-19-3-4.4

Affected: IC 8-9-10; IC 16-19-3

Sec. 25. The following are hereby incorporated by reference as a part of this rule:

(1) Standard CEA-2009, "Receiver Performance Specification for Public Alert Receivers", published by the Consumer Electronics Association. Two (2) copies of these standards are available for reference at the department. Copies may be obtained from the Consumer Electronics Association, 1919 South Eads Street, Arlington, VA 22202.

(2) Standard Z308.1-2003, "Minimum Requirements for Workplace First Aid Kits", published by the American National Standards Institute. Two (2) copies of these standards are available for reference at the department. Copies may be obtained from the International Safety Equipment Association, 1901 North Moore Street, Suite 808, Arlington, VA 22209.

(*Indiana State Department of Health; 410 IAC 6-14-25; filed Oct 30, 2008, 4:02 p.m.: 20081126-IR-410070490FRA*)

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