

OSS News

On-site Sewage Systems

March 2018

Revised Pipe Connector Approval

ISDH has recently revised the septic and dosing tank pipe connector guidance document. Another resilient rubber pipe connector for use in polyethylene and fiberglass tanks has been added to the official list of approved products. This product was previously approved, but just recently added to the guidance document. Be sure to take a look at the revised and updated approval which can be accessed at http://www.in.gov/isdh/files/Tank_Connectors_2018_03_09.pdf. The On-site Sewage System homepage also has access to this and many other policies, guidance documents, standards, rules and other program information and useful links. If you have not visited our homepage recently, please do so. It can be accessed at <http://www.in.gov/isdh/23283.htm>.

New Section to the OSS News

This month, the OSS News is featuring a new section. It will be called Why is this? We hope to feature information and resources to help answer those questions about the basic tenets of OSS design requirements that may not be readily known or understood by those newer to the industry. When explaining OSS or rule requirements to homeowners or other members of the general public, it is very important to be able to provide sound scientific explanation and basis on why certain aspects of system design are necessary and required. We hope to provide you with those basics in this section.

Why is this?

Q: Why do ISDH rules require subsurface trenches to be placed at 7.5 feet on-center?

A: Trenches can provide up to five times more sidewall area than do beds for identical bottom infiltration areas. While Indiana does not give credit for trench side walls in the sizing of the OSS, the side walls do allow for oxygen exchange with the atmosphere. Oxygen will enter the soil from the surface of the ground and will be able to travel through the soil down to the infiltrative surface. The wider the trench, the more air exchange is required to provide an adequate supply of oxygen under the center of each trench. Requiring a minimum of 7.5' on center separation between trenches will provide 4.5' of undisturbed soil between the trenches. This area of undisturbed soil provides the area needed for adequate oxygen transfer through the soil to the trench side walls and, ultimately, to the underlying infiltrative surface. It is critical for the infiltrative surface to have a source of oxygen so that the naturally occurring aerobic bacteria that digest waste in the sewage can survive and thrive.

Also, it is likely that there will be less damage to the soil during construction of trenches because the excavation equipment can straddle the trenches so driving on the infiltrative surface is not necessary. Vehicular traffic over the infiltrative surface can lead to compaction, and compaction prevents, or severely limits, the hydraulic conductivity of the soil as well as the oxygen exchange capacity of the soil. Thanks to Denise Wright for presenting this concept at the 2018 ISDH Annual On-site Meeting. The presentation is available on SharePoint, if you would like to view the entire presentation. For further reading on this topic, Denise has provided the following references.

1. 1980 EPA Design Manual for Onsite Wastewater Treatment and Disposal Systems (available online)
2. B. Freedman, MD, MPH, *Sanitarian's Handbook, Theory and Administrative Practice for Environmental Health, 1977 Edition*
3. PHC Projects, Paul Hey-International policies (2010)

Residential OSS Design Workshops

The Residential OSS Design Workshops are well underway. Workshops have been held in Marshall County, Dubois County and Putnam County. We have had approximately 150 people, including installers, designers, local health department staff, and suppliers attend the workshops so far. There are two opportunities remaining, in Wells and Ripley Counties. We would like to thank Christine Stinson of Marshall County, Shawn Werner of Dubois County and Lisa Zeiner of Putnam County for hosting the workshops. Overall the response has been overwhelmingly positive.

Dates to Remember:

- *April 3 – IOWPA Installer Certification Training and Testing – DeKalb County
- ISDH Residential OSS Design Regional Workshops (all are scheduled for 8:30am – 12:30pm). Registrations are still being accepted at <https://residential-oss-design-workshop.eventbrite.com>. These workshops are open to local health department staff as well as to residential system designers/installers.
 - Apr. 5 – Wells County, Wells County Fairgrounds, Bluffton, IN
 - Apr. 10 – Ripley County, Ripley County Annex, Versailles, IN
- April 12 - IEHA Spring Conference – Horizon Convention Center, Muncie, IN
- *April 24-26 – IOWPA Inspector Certification Training and Testing – Marion County (Installer test to be offered)
- *May 15-17 – IOWPA Inspector Certification Training and Testing – Marshall County (Installer test to be offered)
- *Please check the IOWPA website for additional information (www.iowpa.org)

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Welcome Spring!

Construction season is just around the corner. Be sure to contact your ISDH field rep for assistance if you need training or technical assistance.