

Evan Bayh, Governor

John C. Bailey, M.D., State Health Commissioner

Indiana State Department of Health
2 North Meridian Street
Indianapolis, IN 46204
317/233-1325
TDD 317/233-5577



Indiana State Department of Health

An Equal Opportunity Employer

DATE: November 27, 1996

TO: Local Health Departments

FROM: Alan M. Dunn, Supervisor *AMD*
Residential Sewage Disposal
Sanitary Engineering
AC (317) 233-7177

SUBJECT: Residential On-Site Sewage Disposal
Approval of "Chamber Systems"

We have completed a review of the use of "chamber systems" as a means of on-site sewage disposal technology for the state of Indiana. These systems are subsurface absorption systems proposed as alternatives to the use of gravel in the absorption field trenches. This is typically accomplished by the installation of high density polyethelene or concrete chambers into trenches of appropriate widths for the units being used.

These systems may be approved by local health departments for residential use in the state of Indiana without individual review by ISDH. However, they may not be used on sites where subsurface trench systems would be prohibited due to insufficient area, excessive slope, inappropriate landscape position, excessive permeability, insufficient depth to bedrock or other limiting layer, or a shallow seasonal high water table which cannot be lowered. (See ISDH Rule 410 IAC 6-8.1-49)

Indiana State Department of Health standards for site evaluation and system design must be applied to all aspects of system design and size, with the exception of the standards for aggregate and the lateral piping for gravity flow and flood dosed systems.

These standards include, but are not limited to:

1. Verification by the manufacturer that the units are structurally designed for such use.
2. The installation of splash plates or splash guards to break the velocity of effluent entering the trenches.

"...helping Hoosiers attain the highest level of health possible."

3. Site suitability, system selection, and system size will be determined by site evaluation, soils information, and ISDH soil loading rates as outlined in ISDH Rule 410 IAC 6-8.1.
4. The soil absorption system shall be sized based on the number of square feet of absorption area (trench bottom) required, as calculated by the design daily flow divided by the loading rate. Downsizing shall not be permitted for any chamber system approved under the provisions of this memorandum.
5. Trenches will be no more than 36 inches in width and will be spaced at least 7.5 feet on centers.
6. In gravity flow and flood dosed systems, each trench of the system will be individually connected to a distribution box by unperforated pipe in order to provide equal distribution to each of the trenches.
7. Each individual unit shall have an open end where connected to another unit, so that flow along the length of the trench will not be inhibited.
8. In gravity flow or flood dosed systems, no single trench may exceed 100 feet in length. In pressure distribution systems, no single lateral may exceed 100 feet in length.

In addition to the above approval, this office has no objection to the installation and use of a chamber system for repair or replacement of an existing system in failure, provided that it is in accordance with the best judgment of the local board of health, is not contrary to 410 IAC 6-8.1-31(a), and is no more than 48 inches below the ground surface [see 410 IAC 6-8.1-33(a)].

The use of these systems shall meet all other applicable Indiana State Department of Health rules as well as all other standards set by local ordinance. The acceptance of this type of system by the Indiana State Department of Health does not relieve the builder, home owner, or system installer of the responsibility for compliance with state rule and local ordinances.

If you have any questions, please contact this office.

cc: Environmental Health staff
Plan Review staff
Residential Sewage Disposal staff