

Shallow Disposal Systems Subject to EPA Regulations

Septic Systems, Leach Fields, and Cesspools Subject to Strict Discharge Requirements

If you dispose of any fluids other than sanitary wastewater into a septic tank, leach field, dry well, pit, catch basin, or cesspool, you may be in violation of the Safe Drinking Water Act (SDWA). Sanitary wastewater includes wastewater from bathroom facilities, hand washing, showers, drinking water fountains, and food preparation.

Wastewater other than sanitary wastewater includes: fluids generated in automotive repair shops such as gasoline, diesel fuel, waste oil, antifreeze, degreasers, and other automotive wastes; wastewater from car washes; and agricultural and storm water run off. These wastewater streams typically contain hazardous chemicals such as heavy metals, pesticides, industrial detergents, and other harmful compounds. Because disposal of these and other wastes can contaminate ground water, the disposal of these compounds into any underground, shallow disposal system remains strictly prohibited under both the SDWA and the Resource Conservation and Recovery Act (RCRA).

Class V Wells

These shallow disposal systems are considered by EPA to be underground injection wells. Basically, injection wells are man-made or improved 'holes' in the ground, which are used to discharge or dispose of fluids underground. The federal Underground Injection Control (UIC) program classifies septic systems and the like as Class V injection wells. Class V wells typically are associated with facilities located in rural and unsewered areas where people depend on ground water for their drinking water supply. Their simple construction provides little or no protection against possible ground water contamination, so it's important to control what goes into them. The UIC program protects ground water supplies by establishing regulatory programs that restrict the discharge of wastes that may contaminate your drinking water.

Process Water Discharges

It doesn't take much to contaminate ground water resources; review your operation carefully to determine whether you are discharging any potentially harmful chemicals to a septic system, or other shallow disposal system. Water that has (or may have) come into contact with hazardous substances such as automotive wastes, agricultural chemicals, detergents, or other chemicals is called process water. Process water results from many standard practices.

For example, a typical drain setup in a shop includes a trench drain about a foot deep that runs the length of the shop area. The trench is topped by a steel grate that allows liquids and some solids (such as dirt knocked-off equipment and vehicles) to pass through the grate into the trench. The trench contains an overflow pipe about four inches from the top of the trench. If it gets full, the liquid drains through the overflow pipe into

the septic system. Does this describe your setup? If so, it also describes a prohibited process water discharge.

Another common process water discharge is water from a vehicle and equipment washing operation. The following wash water discharges are prohibited:

discharge to a septic system;

discharge directly to a storm sewer; and

discharge directly to the environment if allowed to run off the wash pad.

This type of wastewater (process water) can be discharged only to a separate sanitary sewer, *not* to a septic system or a storm sewer.

Even oil spills on the shop floor will eventually end up in your septic system when you wash down the floor during routine cleaning.

If you operate a service business disposing of wastes in this manner, you must discontinue your current method of disposal. Contact the appropriate state agency or regional EPA office and stop discharging immediately.

Managing Process Water Discharges

Make your facility a 'zero discharge' shop. Evaluate your discharge to the septic system and make sure the system receives only sanitary wastewater. The suggestions that follow detail just some of the operational changes that will help assure that no hazardous chemicals are discharged to your septic system.

Hook up to the city's sanitary sewer line, and take your septic system completely out of service.

Plug the overflow pipe in your trench drain. Minimize the amount of water that drains to the trench by washing vehicles at a commercial carwash as often as possible.

Hire a contractor to pump out the trench when it gets full, and dispose of the fluid and solids off site.

Collect all petroleum-based fluids for off-site disposal or recycling.

If you operate an exterior wash bay that discharges to the septic system, storm sewer, or directly to the environment, add diversion curbing that directs the wastewater to an inground sump that holds liquids and solids for later disposal. Hire a contractor to pump out the sump when it gets full, and dispose of the fluids and solids off site.

Use only a parts washer to clean and degrease parts, *never* the shop sink.

Post a conspicuous sign over the shop sink reminding employees not to dump any chemicals down the sink. Provide waterless hand cleaner and plenty of shop rags for hand cleaning.

Promptly clean up oil spills with plenty of floor sweep, to prevent oil from contaminating water used to wash down the shop floor.

EPA Requirements

Any septic tank, leach field, cesspool or other shallow disposal system that receives a service-related process water discharge from commercial or industrial operations, or that services more than 10 persons per day, meets EPA's definition of a Class V injection well.

Operators of Class V wells must provide inventory information to their regional EPA office. Class V wells located in a 'source water protection area' must be either:

Closed in compliance with applicable state and federal requirements.

Waived from closure requirements by obtaining an EPA permit. Compliance with the permit will require periodic testing and compliance with established and restrictive wastewater contaminant limits.