

WHEN IS SAMPLING REQUIRED AT A MOTOR VEHICLE WASTE DISPOSAL WELL BEFORE CLOSURE

The minimum federal requirements (published in Title 40 of the Code of Federal Regulations (40 CFR) Section 144.89) for closure of a motor vehicle waste disposal well are that the well must be closed in a manner that prevents movement of contaminated fluids into underground sources of drinking water. The movement of contaminated fluids into ground water is not allowed to cause a violation of national drinking water standards or other health-based standards or adversely affect the health of people.

Because the burden of showing that this requirement has been met is the responsibility of the owner of the motor vehicle waste disposal well, the Underground Injection Control program office of U.S. EPA Region 5 (EPA) has prepared these guidelines to assist well owners. These are only guidelines and may not apply to all situations. Any decisions about a particular facility will be based on the evaluation of the information submitted and the regulations.

One way to show if underground sources of drinking water are being contaminated by fluids from motor vehicle waste disposal wells is to sample the disposal system and provide the analysis to EPA. Most of the disposal systems for motor vehicle waste disposal wells consist of a drywell or drainfield, which tend to be difficult to sample. This can be a challenge for persons without training and experience in sample collection and the laboratory analysis can be expensive.

For a motor vehicle waste disposal well located in a state designated Ground Water Protection Area for a public drinking water well (40 CFR Section 144.86) that is vulnerable to contamination, EPA requires the owner of the disposal system to sample the fluids and sludge in the system and to test for certain constituents that would indicate that motor vehicle waste is present in the underground discharge. EPA may require sampling if there are any other kinds of drinking water wells in the area of the disposal system. There may be other less challenging and less costly ways to show that potentially contaminated fluids are not reaching drinking water sources. If the facility owner can demonstrate to the EPA that the disposal system does not contaminate the underground source of drinking water, sampling and testing of the fluid and sludge in their system can be avoided prior to disposal system closure.

If your motor vehicle waste disposal well is located within a Ground Water Protection Area you may be able to avoid having to sample your disposal system before closure if . . .

The local assessment shows that the drinking water aquifer is not vulnerable to contamination. States must determine the susceptibility of the public drinking water system aquifer to contamination from potential sources of contaminants in the area. If the local assessment for the public water system determines that the aquifer is not vulnerable to contamination, the owner can request that they be exempt from sampling the disposal system. You must provide this information from the local assessment to EPA if you select this method. You can get a copy of the local assessment from your local public drinking water system provider, or the State agency responsible for the State Drinking Water Source Assessment and Protection Program in your area.

If your motor vehicle waste disposal well is NOT located within a Ground Water Protection Area you may be able to avoid having to sample your disposal system before closure if . . .

1. There are no drinking water wells within 100 feet of the system. The facility owner must search for all drinking water wells that may be located within 100 feet of the disposal system. The local government agencies that regulate the construction of drinking water wells can provide the location of any wells in your area. If the owner can provide documentation that there are no water wells in the area, they can request that they be exempt from sampling the disposal system.

OR

2. Drinking water wells within 100 feet of the system are not vulnerable to contamination. For this to be the case, there must be a protective barrier that separates the drinking water aquifer from the underground discharge. If information is provided that shows the drinking water in the area is not susceptible to contamination by the disposal system, the owner can request that they be exempt from sampling the disposal system. Examples of the kind of information that can be provided to show that a drinking water well is not vulnerable to contamination are:

- a. a map showing the location of the underground discharge and all drinking water wells located within 100 feet of the discharge area; and
- b. a diagram of the construction of the disposal system (such as the septic system permit, construction plans for the drainfield, or design for the drywell) that includes the depth of the placement of the system below the ground surface; and
- c. any one of the following four selections
 - a well log prepared at the time the drinking water well was drilled that shows that there is a protective layer of clay (minimum thickness of 10 feet) between the depth of the bottom of the disposal system and the top of the drinking water aquifer; or
 - a map of the ground water flow in the area that shows that flow from the area of the discharge system is not toward the drinking water well. This would need to include the source of the map (if from a publication) or sufficient background information to explain how it was prepared and account for any seasonal variations; or
 - a geologic cross section, soil profile or topographic cross section that shows that there is a feature or barrier that separates the underground discharge system from the drinking water aquifer. This would need to include the source of the information (if from a publication) or sufficient background information to explain how it was prepared; or
 - results of a test for tritium in the drinking water well that shows that no tritium is present in that portion of the aquifer. Tritium is an isotope of hydrogen that was introduced into the environment in large amounts as a result of the atmospheric testing of nuclear weapons. Ground water recharged prior to 1953 has no detectable tritium. Ground water with detectable tritium was recharged after that and is therefore considered by the state drinking water protection programs as vulnerable to contamination from the near surface.

Information that supports #1 or #2 above will need to be provided to and approved by EPA to avoid having to sample the motor vehicle waste disposal well before closure. This can be submitted with the motor vehicle waste disposal well closure plan which needs to be received by EPA at least 30 days before closing your disposal well.

03/31/2005