



EPA

Class V fact sheet **underground injection control**

Injection of Drinking Water Treatment Residuals from Backwash of Microfiltration/Ultrafiltration Units used for Compliance with the Surface Water Treatment Rule

The Underground Injection Control (UIC) Program, created under the authority of the Safe Drinking Water Act (SDWA), is a preventative program aimed at protecting existing and future Underground Sources of Drinking Water (USDWs). UIC regulations define a Class V injection well as a bored, drilled, or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system used for the subsurface emplacement of fluids. Although ultrafiltration backwash waste fluids and neutralized CIP wastes are not classified as industrial waste by EPA Region 8, this type of discharge to an ISDS may be subject to county authorization.

Class V injection wells can be authorized by rule or permit. Class V wells that have the potential for groundwater contamination or degradation usually operate under a UIC Permit. Types of Class V wells that are usually permitted include those that handle waste streams besides solely sanitary waste or any fluid that contains any constituent with a drinking water standard (Maximum Contaminant Limit or MCL) or a Health Advisory concentration. Class V wells that do not have a potential to contaminate or degrade ground water are usually rule authorized, once inventory information has been submitted according to the requirements of 40 CFR 144.26. If the UIC Director has reason to believe a Class V well has the potential to endanger a USDW, he/she may require the owner/operator of a Class V well to submit a permit application providing information that will determine how the Class V well will be regulated. The following is an abbreviated permit application listing information necessary for the UIC Director to determine if the injection of ultrafiltration backwash can be authorized by rule or permit.

- ☐ Name of the facility, mailing address, location address, and GPS coordinates.
- ☐ Administrative contact for the facility, physical and mailing address, phone and fax numbers.
- ☐ Responsible party for the operation, maintenance, and closure of the injection system including physical and mailing addresses, phone and fax numbers.
- ☐ Name, phone and FAX numbers for CDHPE, Water Quality Division contact.
- ☐ Map of the site showing the location of the injection well.
- ☐ Description and/or diagram of injection well.
- ☐ Is the injection well a new or existing structure?
- ☐ Chemical analysis of raw water, if available.
- ☐ Describe the backwash procedure and composition of injectate. Include any additives used, frequency of use, and neutralization, if any. Please note the presence of chlorine in the backwash water could result in the formation of trihalomethanes above the drinking water standard in the groundwater. Chlorine must be neutralized before injection of backwash water.
- ☐ Number of Homesprings filters to be installed, and anticipated volume of injectate.
- ☐ If groundwater is the source for drinking water, is injection into the same formation as the source of drinking water?
- ☐ Location of drinking water supply wells within ¼ mile.
- ☐ If available, description of local hydrogeologic conditions at injection site: soil and geology of injection zone, including depth to groundwater, and direction of flow of ground water.

Please submit all the Class V inventory forms and questions to the Region 8 UIC Mailbox:

R8UICMailbox@EPA.gov

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