

(UIC) Class V Wells

There are over 20 subclasses of Class V injection wells as listed by the US Environmental Protection Agency (USEPA). An USEPA website has definitions for the various subclasses.

The federal UIC regulations exempted all types of Class V wells when they were adopted in 1977, requiring only that these wells be inventoried. The USEPA's emphasis at that time was the injection and disposal of hazardous and industrial wastes through wells, including produced waters from oil production wells. Due to the high potential of shallow injection wells to degrade shallow ground water systems, USEPA is now reassessing the need for Class V well regulations and has recently promulgated a new Class V Rule. The State UIC regulations, however, have included requirements for Class V wells. Permitting of these types of wells is an integral part of Nevada's UIC program.

The following Class V wells are known to exist in the State of Nevada. Currently, permits have been issued for six different subclass-types in Nevada.

- ▶ geothermal
- ▶ aquifer remediation
- ▶ aquifer storage and recovery
- ▶ aquifer recharge (dewatering)
- ▶ experimental technology
- ▶ non-contact process

In 1999, approximately 25% of the State's population, or over 400,000 residents, use groundwater as a drinking water source. Class V wells are of great concern when considering wellhead protection and source water protection program (contact the Bureau of Health Protection Services) areas. It is critical that shallow injection wells are managed properly so that they do not contaminate groundwater. Once contaminated, it takes years, sometimes as many as 10-50 years, and a considerable amount of money, occasionally in the millions of dollars, to clean up groundwater that was only contaminated over a period of a few years by releases into injection wells.

In 1989, NDEP contracted with the Desert Research Institute to conduct a survey of Class V wells in Nevada. The total number of Class V injection wells as reported by responding businesses was 276. The greatest number of well types was from septic-type systems used for commercial purposes. The next most frequently listed well types were storm runoff systems, automobile service station disposal wells, steam cleaning drainage wells and others. Of those respondents who listed "others", the types most frequently mentioned were tailings ponds, underground tanks for waste oil, leach field, used oil trenches, ditches for rain runoff, drains for washing machines, a ground water treatment system to remove organic compounds, and a pit for holding water during drainage of cement trucks.

In 1999, Nevada started working on a more detailed Class V well inventory of Class V wells related to commercial and industrial facilities. There are new Class V regulations that have been promulgated addressing commercial and industrial shallow disposal wells, and cesspools. To find out more, visit the EPA Class V Regulations website.