



CLASS V UIC STUDY FACT SHEET *FOOD PROCESSING WELLS*

What is a food processing well?

Food processing wells are Class V underground injection (UIC) wells used to dispose of food preparation-related wastewater and equipment or facility wash down water. These wells are usually constructed as septic tanks and leachfields, although some are simply drywells that allow wastewater to enter the soil untreated.

What types of fluids are injected into food processing wells?

Food processing wastewater that may contain high levels of organic substances (e.g., food waste), cleaning compound residues, and various inert substances.

Do injectate constituents exceed drinking water standards at the point of injection?

No injectate sampling has been performed, so it is difficult to say what (if any) constituents exceed standards. However, based on observations during site visits and assumptions described in studies of similar wastewater treatment systems, it appears likely that the concentrations of nitrate, nitrite, total coliform, and ammonia may exceed primary drinking water standards or health advisory levels. It is also possible that the secondary drinking water standards for turbidity and chloride may be exceeded.

What are the characteristics of the injection zone of a food processing well?

Food processing wells typically inject above underground sources of drinking water (USDWs) and into a variety of different geological formations, terrains, and soils. However, one recently closed food processing well at a fruit processing facility in Hawaii was injecting directly into a USDW. Site visits in TN revealed that some food processing facilities inject slaughterhouse wastewater, via septic systems, into fractured geologic units and karst terrains that apparently had very little top soil.

Are there any contamination incidents associated with food processing wells?

Only one USDW contamination incident has been identified that is clearly linked to a food processing well. In ME, a lobster processing/holding facility discharged large volumes of seawater into its combined food processing well and sanitary septic system. As a result, the chloride concentration in a nearby private drinking water well exceeded the secondary drinking water standard.

Are food processing wells vulnerable to spills or illicit discharges?

Food processing wells may be vulnerable to receiving spills that occur at the facility. Some food processing facilities use strong cleaning compounds to clean or disinfect equipment and, based on observations from site visits, some facilities may not always be storing these chemicals in storage areas away from floor drains that are connected to food processing wells.

How many food processing wells exist in the United States?

There are at least 741 documented food processing wells and more than 1,468 estimated to exist in the United States.

Where are food processing wells located within the United States?

Of the 741 documented wells, 43 percent are found in ME and NY and 52 percent are found in AL and WV. The remaining few are found in AK, WI, HI, and a few other states. TN also has a significant number of food processing wells but the inventory has not been finalized.

How are food processing wells regulated in states with the largest number of this type of well?

Permit by rule: AL, TN, WV, and IA
Individual or general permit: AK, ME, NY, OR, and WI
Varies by county/region: CA
Banned: OR

Where can I obtain additional information on food processing wells?

For general information, contact the Safe Drinking Water Hotline, toll-free 800-426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Standard Time. For technical inquiries, contact Amber Moreen, Underground Injection Control Program, Office of Ground Water and Drinking Water (mail code 4606), EPA, 401 M Street, SW, Washington, D.C., 20460. Phone: 202-260-4891. E-mail: moreen.amber@epa.gov. The complete Class V UIC Study (EPA/816-R-99-014, September 1999), which includes a volume addressing food processing wells (Volume 6), can be found at <http://www.epa.gov/OGWDW/uic/cl5study.html>.
