

US EPA ARCHIVE DOCUMENT

FACT SHEET
U.S. Environmental Protection Agency, Region 9 Draft Class I Nonhazardous
Underground Injection Control Permit # CA 10910004
County of Santa Barbara
Laguna County Sanitation District

Location:

Santa Barbara County
Laguna County Sanitation District
Santa Maria Valley Field
Section 14, Township 10, Range 35SW

Permittee Contact:

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I. Purpose of the Fact Sheet

Pursuant to the Underground Injection Control (UIC) regulations in Title 40 of the Code of Federal Regulations (CFR), §124.8, the purpose of this fact sheet is to briefly describe the principal facts and the considerations that went into preparing the draft permit. To meet these objectives, this fact sheet contains background information on the permit process, a description of the facility, a brief discussion of the permit conditions, and the reasons for these permit conditions.

II. Permit Process

Application and Review Period

The U.S. Environmental Protection Agency, Region 9 (EPA) Director has authority to issue permits for underground injection activities under 40 CFR §144.31. The Santa Barbara County Department of Public Works, Laguna Sanitation District (LCSD) is applying for the renewal of Underground Injection Control (UIC) permit # CA10910004 to continue injecting into one (1) Class I injection well known as Union Sugar #13. The well is used to dispose of industrial non-hazardous fluids produced from the reverse osmosis treatment process at their nearby wastewater treatment facility in Santa Maria, California.

In December 2009, EPA received a permit renewal application for the continued operation of the Union Sugar #13 UIC well from LCSD. EPA requested, and LCSD provided, supplemental information in February and May 2010. After completing a thorough technical review of all submitted information, EPA has determined that the information provided by LCSD is now sufficient to complete a draft renewal UIC permit. Accordingly, EPA has completed a draft Class I nonhazardous UIC permit that would authorize the continuation of injection for another 10-year period. The draft permit contains operation, maintenance, monitoring, reporting, and abandonment requirements.

Based on our review of the operational standards, monitoring requirements, existing geologic setting, and the operational history of the facility over the prior ten (10) year permitted period, EPA believes the activities allowed under the proposed draft permit are protective of Underground Sources of Drinking Water as required under the Safe Drinking Water Act.

Public Participation

The public has thirty (30) days to review and comment on the Class I UIC draft permit (40 CFR §124.10). The draft permit and this fact sheet are available at the following location:

Santa Maria Public Library
420 South Broadway
Santa Maria, CA 93454
(805) 925-0994

The draft permit, this fact sheet, and the permit application are available at the following location:

U.S. Environmental Protection Agency Environmental Information Center/Library
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 947-4406
Library-reg9@epa.gov

The draft permit, fact sheet, and permit application are also available at the EPA Region 9 web page:

<http://www.epa.gov/region09/water/groundwater/uic-permits.html>

The public comment period begins on January 10, 2011 and ends on February 10, 2011. During this period, all written comments on the draft permit can be sent, faxed, or e-mailed to Michele Dermer (see the contact information listed on the first page of this fact sheet), who is also available by phone for any questions regarding the draft permit.

All persons, including the applicant, who object to any condition of the draft permit or EPA's decision to prepare a draft permit must raise all reasonably ascertainable issues and submit all reasonable arguments supporting their position by the close of the comment period (40 CFR §124.13). A public hearing may be held only if there is a significant degree of public interest in the draft permit (40 CFR §§124.11 and 124.12).

Final Decision Making Process

After the close of the public comment period, EPA will review and consider all comments relevant to the UIC permit and application. EPA will send a response to comments to the applicant and each person who has submitted written comments or requested notice of the final permit decision. EPA will also post the response to comments document on our website. The response to comments will contain: a response to all significant comments on the draft permit; EPA's final permitting decision; any permit conditions that are changed and the reasons for the changes; and procedures for appealing the decision. The final decision shall be to either issue or deny the permit. The final decision shall become effective no sooner than thirty (30) days after the service of the notice of decision. Within thirty (30) days after the final permit decision has been issued, any person who filed comments on the draft permit, participated in any Public Hearing on this matter, or takes issue with any changes in the draft permit, may petition the Environmental Appeals Board to review any condition of the permit decision. Commenters are referred to 40 CFR §124.19 for procedural requirements of the appeal process. If no comments request a change in the draft permit, the permit shall become effective immediately upon issuance (40 CFR §124.15).

III. Description of the Facility

The LCSD operates a wastewater treatment plant in Santa Maria, California. The County disposes of the concentrated brine (saline) waste product from the reverse osmosis treatment process at the plant via a Class I non hazardous injection well operating in close proximity to the plant. The well is permitted by EPA under a UIC permit, and has been previously operating under the existing UIC permit. The well was converted from a former oil well in 2002.

The LCSD injection well facility is located approximately four miles northwest of the LCSD wastewater treatment plant. The injection fluid is piped via a four inch pipeline

from the treatment plant to the injection well. The injection fluid is generated by reverse osmosis units at the treatment plant that treat effluent that is high in salt content. The units generate a brine concentrate that is sent to the injection well. In addition to the brine from the reverse osmosis units, LCS D has a brine unloading station to accept concentrated brine from local water softening companies. The local water softening companies are specifically listed in the draft permit.

The injection well has been operating under an existing permit which is up for renewal. The daily flow to the injection well has averaged 110,000 gallons per day for the last seven (7) years. The well is permitted to inject at 1,000 psi, however the surface injection pressure is 0 psi (due to gravity flow). The brine is injected into the Monterey Formation at a depth of approximately 4,800 feet to 5,336 feet below ground surface.

IV. Brief Summary of Specific Permit Conditions

In order to protect public health and the environment, EPA is proposing the following conditions for operation, monitoring and reporting, plugging and abandonment, and financial responsibility in the Draft Class I UIC Permit:

Well Operation (Part II, Section D of the Draft Permit)

The permit restricts LCS D from injecting any hazardous waste into the injection well. The maximum allowable injectate volume and pressure limitations are already set based on the results of testing under the existing permit. The draft permit requires annual mechanical integrity and pressure transient testing to ensure protection of underground sources of drinking water. LCS D must demonstrate mechanical integrity by means of an annular pressure test in the tubing/casing annulus, an evaluation of cement integrity in the casing/borehole annulus and sufficient results from temperature logs and radioactive tracer testing. Under the new permit, the Permittee is required to provide EPA (for its approval) with work plans to describe the proposed procedures to conduct the various tests. The Permittee is also responsible for measuring and monitoring formation pressure data annually to ensure that pressure buildup is limited to the AOR. The permit also requires that LCS D operate their injection well in such a manner as to not initiate or propagate fractures in the injection formation or the confining zone (aquitard).

Monitoring, Record Keeping, and Reporting (Part II, Section E of the Draft Permit)

LCSD is required to continuously monitor injection rate, total injection volume, injection pressure, annular pressure, and injection fluid temperature. LCSD is required to sample the injectate on a quarterly basis to determine the quantities/values of following: Inorganics (Major Anions and Cations); Solids (Total Dissolved Solids and Total Suspended Solids); General and Physical Parameters (Turbidity, pH, Conductivity, Hardness, Specific Gravity, Alkalinity, Biological Oxygen Demand (BOD), and Density and Viscosity.

All sampling analyses must be performed at a certified laboratory. LCSD is required to maintain all operational and monitoring records, and to submit quarterly summary reports to EPA.

Well Plugging and Abandonment (Part II, Section F of the Draft Permit)

Upon determination that the injection well regulated by this permit is to be permanently abandoned, LCSD is required to abandon the injection well according to the Plugging and Abandonment Plans in Appendix F of the draft permit. EPA reserves the right to change the manner in which a well will be plugged if the well is modified during its permitted life or if the well is not consistent with EPA requirements for construction or mechanical integrity.

Financial Responsibility (Part II, Section G of the Draft Permit)

The Permittee shall maintain a bond rating within the four highest categories of Standard and Poor's, Moody's, or Fitch. If the most recent bond rating does not fall within the four highest categories, the Permittee shall post a financial instrument such as a surety bond with a standby trust agreement or arrange other financial assurance for each well constructed in the amount of \$633,000 to guarantee closure. The Permittee must provide proof to EPA of its bond rating or renewal annually.

The financial responsibility mechanism and amount shall be reviewed and updated periodically, upon request of EPA. EPA may require the Permittee to change to an alternate method of demonstrating financial responsibility.

Duration of Permit (Part II, Section H of the Draft Permit)

EPA proposes to issue the permit and the authorization to inject for a period of up to ten (10) years unless terminated under the conditions set forth in Part III, Section B.1 of the draft permit.