

US EPA ARCHIVE DOCUMENT

FACT SHEET

U.S. Environmental Protection Agency, Region 9 Draft Class I Underground Injection Control Permit # CA10910002 To S.M.S. Briners (Operator) and Kruger Foods, Inc. (Owner)

Location:

S.M.S. Briners
17750 East Highway 4
Stockton, CA 95215

Permittee Contact:

Mr. Bob Chelli, President
S.M.S. Briners
17750 East Highway 4
Stockton, CA 95215
Plant phone: (661) 762-6000

Regulatory Contact:

Adam Freedman, Environmental Scientist
U.S. Environmental Protection Agency, Region 9
Ground Water Office, Mail Code WTR-9
75 Hawthorne Street
San Francisco, CA 94105-3901
Telephone: (415) 972-3845
Fax: (415) 972-3545 (include name and mail code from above)
Email: freedman.adam@epa.gov

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. S.M.S. Briners (“SMS”) is applying for a UIC permit renewal (of permit #CA192000001) to operate a Class I injection well facility to dispose of non-hazardous brine from the SMS and Kruger Foods Inc. (“Kruger”) facilities. EPA received an individual permit application dated April 10, 2006, for continued operations of one (1) Class I non-hazardous UIC

wells from SMS. Following a determination that the application was administratively complete, EPA began the technical review. Following a thorough technical review, EPA determined that the information provided was insufficient to complete a draft UIC permit. SMS was notified of their technically insufficient application, and submitted all requested data and information on August 26, 2005, April 1, 2008 and April 28, 2008. EPA has now completed a draft Class I nonhazardous UIC renewal permit that would authorize the continued operation of one (1) injection well, Sousa-1. The draft permit contains numerous updated operation, maintenance, monitoring, reporting, and abandonment requirements.

Based on our review of the current well construction, operation standards, monitoring requirements, and the existing geologic setting, EPA believes the activities allowed under the draft permit are protective of Underground Sources of Drinking Water as required by the Safe Drinking Water Act.

Public Participation

As described in EPA's Public Notice for this proposed action, the public has thirty (30) days to review and comment on the Class I UIC draft permit (40 CFR §124.10). The Public Notice, draft permit and this fact sheet are available at the following locations:

Cesar Chavez Central Library
605 N. El Dorado St.
Stockton, CA 95202-1907

U.S. Environmental Protection Agency, Region 9
Ground Water Office
Attn: Adam Freedman, Mail Code WTR-9
75 Hawthorne Street
San Francisco, CA 94105

The Public Notice, draft permit, and fact sheet 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 October 11, 2009 and ends on November 10, 2009. During this period, all written comments on the draft permit can be sent, faxed, or e-mailed to Adam Freedman using the contact information listed on the first page of this fact sheet. Adam Freedman 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). The public comment period may be reopened if this could expedite decision making (40 CFR §124.13). If requested, a public hearing may be held (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 prepare a response to comments and send it to the applicant and each person who has submitted written comments or requested notice of the final permit decision. We will post the response to comments on our website. The response to comments will contain: a response to all significant comments on the draft permit; EPA's final 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

S.M.S. Briners uses sodium chloride, calcium chloride and several other chemicals to pickle and color vegetables. They generate approximately 10 million gallons of brine per year. The owner of SMS, Kruger Foods, Inc., generates approximately 17 million gallons of brine per year for injection, consisting primarily of washdown fluids from their facility used to remove salt and contamination from their equipment. Seven million gallons per year of rainwater that collects between holding tank rows is also injected. All of the rainwater, SMS' brine and Kruger's washdown fluids are collected in a tank upstream of Sousa-1. The fluids are then filtered for solids, but not subjected to chemical treatment. The filtered solids are disposed of by landfill. SMS began commercial operations in 1965, while Kruger commenced operations in 2003. The waste streams from the two facilities have been combined upstream of the wellhead and injected together since June, 2004. SMS submitted a report on June 15, 2009 characterizing the waste streams from both facilities and provided lab analyses of the injectate streams from each of the two facilities. The SMS facility consists of approximately 1280 brining tanks, ranging in size from 6,300 gallons to 11,000 gallons. The combined SMS and Kruger facility area is approximately 67 acres.

The subject well, Sousa-1, has been operated since October 1992. Since operation of the well commenced, the well has experienced a loss of mechanical integrity due to degradation of the tubing string or a packer problem on several occasions. Tubing joints were repaired in 2002 and 2005 due to corrosion and a new packer was installed in 2006 after a loss of mechanical integrity. Corrosion-resistant tubing and a corrosion-resistant

packer were installed in 2008 and 2009 respectively. A casing inspection log (“CIL”) was also run during 2008. The CIL indicated that a small degree of casing thickness (<15% of original) had been corroded so injection operations would be allowed to continue. However, due to the limitations on the use of the CIL data, a subsequent CIL may be required by EPA. All evaporative ponds that were used previously to handle contact stormwater have been eliminated from use.

SMS has applied for a permit to allow continued operation at an injection rate of 100 gallons per minute, resulting in an anticipated average injection rate of 3,428 barrels of wastewater per day (bbl/day). Maximum allowable injection pressure measured at the wellhead shall be based on the results of the Step-Rate Test to be conducted prior to final issuance of the draft renewal permit.

IV. Brief Summary of Specific Permit Conditions

In order to protect public health and the environment, the following conditions for injection well construction, corrective action, operation, monitoring and reporting, plugging and abandonment, and financial responsibility have been included in the SMS Draft Class I UIC Permit:

A. REQUIREMENTS PRIOR TO TESTING, CONSTRUCTING, OR OPERATING

Requirements Prior to Testing, Constructing or Operating (Part II, Section A of the Draft Permit)

The Permittee shall supply evidence of financial assurance prior to commencing injection well operation under the authority of this permit.

Well Specifications (Part II, Section B of the Draft Permit)

The draft renewal permit will not be signed and issued until SMS supplies evidence of secured financial assurance and conducts a Step-Rate test to establish maximum allowable injection pressure. Well design specifications include a Surface casing (9-5/8 inch diameter) from ground surface to approximately 1,424 ft bgs and Long-String casing (5-1/2 inch diameter) from ground surface to approximately 5,486 feet below ground surface to the top of the target Starkey Sands formation, with four (4) perforations per foot between 3,332 and 3,378 ft bgs. The confining layer, the ‘K1 Shale’ is a mudstone to shale bed that separates the Upper and Lower Starkey Sands. The confining layer is located between approximately 2,558 and 2734 ft bgs. The tubing and packer for well Sousa-1 are coated with fusion-bonded epoxy to prevent corrosion from injection fluid. The tubing (2-3/8 inch diameter) runs from the surface to approximately 2,989 ft bgs. The 5-1/2” Baker Lok-Set Tension Packer is located from 2,989 to 3,010 ft bgs. The surface casing and long string casing are all cemented to the surface. Complete well schematics are included in Appendix B of the draft permit.

Pressure fall-off tests (“FOT”) will be conducted annually according to the schedule established during the tenure of the original permit to determine and monitor formation characteristics. A step-rate test (SRT) will be conducted on the well before injection is permitted to recommence under the authority of the renewal permit.

A casing inspection log (CIL) to 3,306’ bgs (below the packer) was conducted in 2008. Subsequent CILs will be conducted at a frequency dependent upon the results of the most recent log or when requested by EPA (see Appendix G of the draft permit for Casing Inspection Log Guidance):

SMS shall install and maintain in good operating condition a tap on the discharge line for the purpose of obtaining representative samples of injection fluids. Digital recording devices are to be installed and maintained such that SMS may continuously measure and record injection pressure, annulus pressure, flow rate, and injection volumes.

Corrective Action (Part II, Section C of the Draft Permit)

Corrective action may be necessary for existing wells in the Area of Review (“AOR”) that penetrate the injection zone, or which may otherwise cause movement of fluids into USDWs. No corrective action plan is currently required, since no known wells located within the AOR penetrate the confining or injection zones.

Annually, the Zone of Endangering Influence (“ZEI”) calculation shall be reviewed and modified if necessary, based on any new data obtained from the FOT(s) and static reservoir pressure tests. If any wells requiring corrective action are found within the modified ZEI, SMS shall submit a plan to re-enter, plug, and abandon the wells to prevent the migration of fluids into a USDW.

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

Prior to receiving re-authorization to inject under the authority of the renewal draft permit, SMS will conduct internal and external mechanical integrity testing, a new step-rate test, and a Hazardous Waste Determination. SMS may cite a recent test as demonstrating integrity if conducted in the last year according to the schedule established by the original permit or due to workover operations. No hazardous waste may be injected into the injection well. Maximum allowable injection pressure shall be based on the results of the new SRT. Until a new maximum pressure is determined, SMS may continue to inject at a wellhead pressure of 1200 psi, as established while injecting under the authority of the original permit. Maximum allowable injection rate shall be limited to 100 gallons per minute, or 3,428 bbls/day. The permit requires annual mechanical integrity and pressure transient testing to ensure protection of underground sources of drinking water. Mechanical integrity must be demonstrated 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.

The tubing/casing annulus pressure and injection pressure shall be monitored and recorded continuously. Corrosion-inhibiting annular fluid shall be used and maintained during well operation. A minimum pressure of 100 psi at shut-in conditions shall be maintained on the tubing/casing annulus. Within the first quarter of injection operations, SMS shall determine the range of fluctuation of annular pressure that shall be considered normal for the well configuration during periods of injection. The results of this determination shall be submitted with the first quarterly report after injection operations have commenced. Any annular pressure behavior outside of the normal range of fluctuation shall be considered indicative of a loss of mechanical integrity.

The injection well will be operated so as to not initiate or propagate fractures in the injection formation.

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

SMS is required to continuously monitor injection rate, total injection volume, injection pressure, annular pressure, and injection fluid temperature. SMS is required to sample the injectate on a quarterly basis or when there is a significant change in injection fluid to determine the following: Inorganics (Major Anions and Cations); Solids (Total Dissolved Solids and for Total Suspended Solids); General and Physical Parameters (Turbidity, pH, Conductivity, Hardness, Specific Gravity, Alkalinity, Biological Oxygen Demand (BOD), Density and Viscosity); Trace Metals; Volatile Organic Compounds (VOCs); and Semi-VOCs. The injection fluid characteristics shall be submitted to EPA quarterly. All sampling analyses must be performed at a laboratory approved by EPA.

SMS is required to maintain all operational and monitoring records, and to submit quarterly summary reports to EPA. Quarterly, SMS shall submit accurate reports of hourly and daily values for the aforementioned continuously monitored parameters, as well as monthly average, maximum and minimum values, and total cumulative injected volume over the life of the well to date. A narrative description of all non-compliance that occurred during the reporting period shall be submitted quarterly as well. The results of all annually required testing shall be submitted to EPA on a yearly basis.

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, SMS would be required to abandon the well according to the Plugging and Abandonment Plans in Appendix E of the draft permit. EPA reserves the right to change the manner in which the 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)

Authority to continue injection operations under the authority of the renewal draft permit will not be granted until financial resources sufficient to properly close, plug, and

abandon the well amounting to \$307,800 are posted and approved by EPA. Failure to establish or maintain the required financial responsibility could result in termination of the permit.

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

The permit and the authorization to inject would be issued for a period of up to ten (10) years unless terminated under conditions set forth in the draft permit.