

FACT SHEET
CLASS I WELLS

I. Background Information

1. Owner/Operator: National Cooperative Refinery Association
Address: 2000 South Main Street, McPherson, KS 67460
2. The application for permit pertaining to the permitting of two deep disposal wells located in Section 32, Township 19 South, Range 3 West. Well #4 is located at latitude from 38.348056 and longitude -97.679722 and Well #5 is located at latitude 38.349167 and longitude -97.679722.

II. Injection Details

1. Injection is made into the Arbuckle formation through openhole from a depth of 3805 feet to 4405 feet.
2. Disposal will be by means of gravity flow; wellhead pressure will not be allowed.
3. The maximum rate of injection will be 1,440,000 gallons per day per well.

III. Description of Waste and Fluids to be Injected.

The fluids to be injected are described as non-hazardous liquid waste consisting brine contaminated water currently being disposed under the well's Class II permit, sanitary waste water, boiler blow down, blow down from cooling towers, rinse water from zeolite regeneration, and effluent from the Sequencing Batch Reactors (SBR's) which represent the final step in the treatment of oily water from the refinery.

IV. Description of Disposal Formation

The Arbuckle formation is a sequence of dolomites, limestones and occasional sandstone units which are extensively used for disposal of oil field brine and treated industrial wastewater in Kansas. In North Central McPherson County, the Arbuckle is approximately 500 feet in thickness and the top of the sequence is encountered at a depth of approximately 3800 feet. The Arbuckle formation is capable of receiving large quantities of fluid without use of wellhead pressure because of its porous and permeable nature.

V. Chemical Characteristics of Disposal Formation Waters

The connate disposal formation waters in the vicinity of these wells exceed the "usable" water standards of 10,000 mg/l total dissolved solids.

VI. Construction, Monitoring, and Operation of Well

All construction, monitoring, and operation of these wells has or will meet the requirements that apply to Class I injection wells as outlined in the Kansas Underground Injection

Control Regulations, K.A.R. 28-46-1 through 28-46-44. The applicant must agree to all conditions stated in the final permit as required by the Department.

VII. Basis for Draft Permit Conditions

1. General

- (a) Applicable Federal laws
- (b) Applicable Federal regulations
- (c) Applicable State statutes
- (d) Applicable State regulations
- (e) Applicable State and Federal waste quality standards
- (f) Technical guidance and reference documents
- (g) Permit application and supporting documents
- (h) Technical expertise and professional judgment of permit writers and Department technical staff
- (i) Technical input and consultation with Federal, State and Local agencies and representatives of citizen groups

2. Specific

The following specific documents were used to draft permit limitations, conditions, operating procedures, monitoring and reporting requirements:

- (a) Clean Water Act (Public Law 100-4)
- (b) Resource Conservation and Recovery Act
- (c) Safe Drinking Water Act
- (d) Toxic Substances Control Act
- (e) 40 CFR Parts 122-125, 136, 144-148, 233, 251, 260-271 and Guidance 1425
- (f) K.S.A. Chapter 65
- (g) Hazardous Waste Management Articles 31 and 34
- (h) Kansas UIC Regulations 28-46-1 through 28-46-44
- (i) Drinking Water Standards (Public Law 93-523, 40 CFR Part 141)
- (j) K.A.R. 28-15-11 through 22
- (k) EPA-600/2-77-240, An Introduction to the Technology of Subsurface Wastewater Injection
- (l) Type Logs of Kansas published by the Kansas Geological Society
- (m) U.S.G.S. Professional Paper 708, Groundwater Hydraulics
- (n) Freeze and Cherry - Groundwater
- (o) Davis and DeWiest - Hydrogeology
- (p) Applicable bulletins and other related publications by the Kansas Geological Survey
- (q) Applicable publications by the U.S. Geological Survey
- (r) Warner and Lehr - Subsurface Wastewater Injection

VIII. Area of Review

The area of review, as specified in K.A.R. 28-46-32, has been examined by the Department.

IX. Evidence of Financial Responsibility

The applicant has established the necessary financial assurance for the future plugging and abandonment of this well by submission of a financial test.

X. Final Determination Procedures

In anticipation of public interest and a desire to comment, the agency has allowed 30 days from the date of the public notice to submit comment.

XI. Additional information may be obtained from:

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(785) 296-5554