



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

0059

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Executive Secretary

February 5, 1997

Ben Grimes
Cyprus Plateau Mining Corporation
P. O. Drawer PMC
Price, Utah 84501

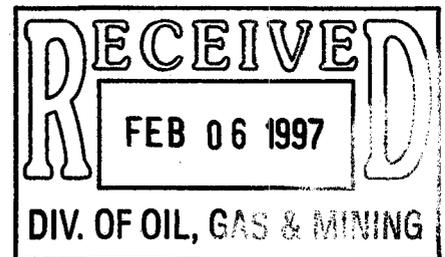
Dear Mr. Grimes:

Subject: Renewal of UIC Permit UTU500001

det/007/038 # 2
Copy to [unclear], Joe, Ken
[unclear]

This is a follow-up letter to our meeting on January 9, 1997 in which we explained the need for additional information. Since that meeting I have talked extensively with personnel at the National Sanitation Foundation (NSF), Hychem, Inc., and EPA Region VIII concerning the two new flocculants you propose to inject along with the coal fines (Hychem Hyperfloc AE 852 and CP 624). Although both have received NSF approval for use as additives for treating drinking water, that approval was based on expected polymer dropout due to filtration, settling, etc. in a water treatment plant, and subsequent hydrolysis of the water soluble acrylamide monomer residual which would leave a safe level in the drinking water. Inasmuch as the acrylamide monomer residual is a probable human carcinogen, and some of the surfactants used contain known or possible carcinogens or mutagenics, further evaluation is needed to determine whether injection of the entire flocculant content of the slurry will endanger human health and the environment. Additionally, since the Primary Drinking Water Standards and the coal fines source have changed since the issuance of the original permit, further analyses will be required to determine the quality of background ground water and the proposed injectate. Accordingly, you are asked to provide us with the following additional information in order to expedite renewal of the permit:

1. Please provide an evaluation of the possibility (with concentrations) that the two flocculants could migrate into the adjacent Price River via ground water flow. This is requested because Price River water downstream of the site is used for drinking water by the City of Green River, and cationic polymers are known to be toxic to fish.



2. Please provide a list of the degradation by-products of these flocculants that could be expected after the slurry is injected into the abandoned coal mine:

Hychem, Inc. Hyperfloc AE 852 and CP 624

3. What concentrations of the AE 852 and CP 624 flocculants do you plan to inject?
4. Please provide analytical methods for both of the flocculants noted above. Although I recently forwarded to you a copy of an analytical method for acrylamide monomer (provided by NSF), a method is needed to analyze for the acrylamide polymer. The manufacturer may be able to help you in this regard.
5. Please provide an analysis of your new coal source utilizing EPA Method 1312 or an equivalent synthetic leach test. The leachate must be analyzed for the following parameters, as referenced in the 4 page attachment listing contaminants/parameters:
- Primary Inorganic Contaminants (see 1st page of attachment)
Additional parameters, as noted on page 4 of the attachment.
6. Please provide new analyses of background ground water and the proposed injectate, to include all the analytes listed in the 4 page attachment. Please note the preferred volatile organic analytical method.
7. Please indicate the volume of slurry intended to be injected per day and per year, and whether injection will be continuous or intermittent.
8. Please review and modify as needed the plant operation portion of your original permit application.
9. Please provide a contingency plan which will be implemented in the event of chemical spills or dumping incidents involving plant operations or the Price River upstream of your diversion. It should address means to be utilized to prevent contaminants from being injected into the abandoned mine, as well as ways to mitigate the effect of contaminants which might inadvertently get injected.
10. Please estimate the maximum daily volume of Price River water that could be injected into the abandoned mine, along with the anticipated frequency of such injection (days/year).
11. Please indicate the disposition of the wastewater which is collected in the plant main floor drain sump and sent to the coarse refuse screen.

Ben Grimes
February 5, 1997
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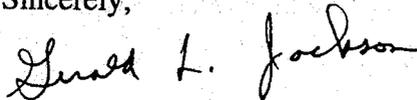
12. Please provide us with a copy of the Utah Division of Oil, Gas, and Mining (DOG M) reclamation bond showing the latest name change for your facility.

The sampling requested above must be done using appropriate sampling methods, containers, preservatives and chain of custody procedures (guidelines attached). Analyses must be done at a State-certified lab.

Enclosed with this letter is the Utah Division of Water Quality (DWQ) "Quality Assurance Project Plan" (QAPP) which is intended as a guidance document to assist Cyprus Plateau Mining Corporation (Cyprus Plateau) in submitting their own 'Sampling Quality Assurance Plan.' The latter document must be consistent with the DWQ QAPP, and will need to be submitted to DWQ at least 30 days prior to intended startup of injection. Also enclosed as a reference are EPA Requirements for Quality Assurance Project Plans..., a State-approved QAPP for a Cache Valley ground water study, and a copy of the appendices referenced in the latter. The Cache Valley plan may be of significant help, as it is basically the kind of plan we need from Cyprus Plateau, with modifications for sampling methods, analytes, etc.

As requested, a copy of our UIC Permit File for the above-noted permit has been mailed to you. Please call me at 801-538-6146 if you have any questions.

Sincerely,



Gerald L. Jackson, Environmental Scientist
Ground Water Protection Section

GLJ:wlm

Enclosures

cc: Dr. Claron Bjork, SE Utah District HD (Without enclosures)
David Ariotti, District Engineer (Without enclosures)
Douglas Minter, EPA Region VIII (Without enclosures)
Division of Oil, Gas and Mining (Without enclosures)