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Mark S. Pelizza
Vice President
Health, Safety and Environmental Affairs

September 6, 1996

Mr. Bob Carlson
High Level Waste & Uranium Recovery Projects Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
NMSS (T-7-J9)
Washington, D.C. 20555-0001

40-8968

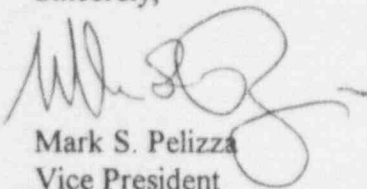
RE: Response to Q1/51

Dear Mr. Carlson:

Please find attached three copies of the revised Q1/51. We have rephrased the response to include the premining use standard of the sovereign authority with regulatory jurisdiction.

Please replace the current Q1/51 response with the attached.

Sincerely,



Mark S. Pelizza
Vice President
Health, Safety and Environmental Affairs

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MSP/dlg
Encl. 030025

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**ADDITIONAL INFORMATION REQUEST
HYDRO RESOURCES, INC. IN-SITU LEACH URANIUM MINE
CROWNPOINT, NEW MEXICO**

ISSUE: Water Resource Protection

Commitments Applicable to
Crownpoint, UNIT 1, and Churchrock

51. Ground Water Restoration Standard

Discussion - In the Draft Environmental Impact Statement it is concluded that "restoration tests described in Section 4.1.4 indicate, however, that ground-water quality would be restored not only to drinking-water standards, but also to baseline conditions" (Reference 1, 4-30). However, the Draft Environmental Impact Statement is not in complete agreement with itself since it also states "Restoration criteria would be established on a parameter-by-parameter basis, and the primary goal of restoration would be to return all parameters to baseline conditions. Individual parameters that cannot be returned to baseline by reasonable efforts, on a mine-unit average basis, would be returned at least to concentration levels corresponding to the greatest potential pre-mining use of the ground water, based upon the State of New Mexico drinking water and livestock standards" (Reference 1, page iii).

In the "Crownpoint Project In-Situ Mining Technical Report" a commitment is not made to restore the ground-water quality to baseline standards, but to restore the total dissolved solids to previous use levels and uranium concentrations to drinking water standards (Reference 2, page 1). Furthermore, on page 81 (Reference 2) another set of restoration standards appear to be described. Here, successful restoration is described as a series of decisions. The first phase of restoration is considered to be complete when the chemical parameters; Ca, Mg, Na, K, CO₃, HCO₃, SO₄, Cl, nitrate, SiO₂, TDS@180, EC@25 C, Ed(dilute) and Alkalinity as CaCO₃ are consistent with baseline quality. After this has occurred, the NRC will be notified and a time selected for split sample collection. Three sample sets will be taken at one month intervals from the original baseline wells. Providing no significant changes exist between the first two analyses, the third sample set will be analyzed for the minor and trace constituents As, Cd, Fe, Pb, Mn, Mo, Se, U, and Ra-226. If it is then determined the ground water would be suitable for any use to which it was reasonably suited prior to mining, negotiation will be conducted with the Department to discuss if restoration is complete. This process appears to commit to baseline restoration values for the major ground-water quality parameters (Ca, Mg, Na, K, CO₃, HCO₃, SO₄, Cl, nitrate, SiO₂, TDS@180, EC@25 C, and Ed) and to restoration to ground-water use based on a selected group of trace elements.

Action Needed: Describe the ground water restoration standard that will be applied at the three solution mining sites. Confirm if the ground-water restoration standard described in the Draft Environmental Impact Statement is acceptable. If it is not acceptable, propose another.

Response

HRI, Inc. proposes the following change in the ground water restoration standard stated in the EIS as follows:

Restoration criteria would be established on a parameter-by-parameter basis, and the primary goal of restoration would be to return all parameters to baseline conditions. Individual parameters that cannot be returned to baseline by reasonable efforts, on a mine-unit average basis, would be returned at least to concentration levels corresponding to the greatest potential premining use of the ground water, based upon the drinking water or livestock standard of the sovereign authority with regulatory jurisdiction.

We believe that most parameters will be restored to baseline levels. In the event they cannot be restored baseline by reasonable efforts, the standard will be the highest premining use of the ground water as specified in NMWQCC 3-103 on non Indian land and 40CFR141 on Indian land.

At this time we anticipate only one parameter that will exceed NMWQCC 3-103 or 40CFR141 standards during baseline conditions, Radium 226. Radium will be restored to levels which are consistent with baseline.

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