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KERR-McGEE CORPORATION
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ENVIRONMENT AND HEALTH MANAGEMENT DIVISION

FEDERAL EXPRESS

July 14, 1982

Mr. Ross A. Scarano, Chief
Uranium Licensing Branch
Division of Waste Management
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Comments on Draft Staff Technical Position Paper WM-8203
"Hydrogeologic Characterization of Uranium Solution Mine
and Mill Tailings Disposal Site"

Dear Mr. Scarano:

Kerr-McGee Nuclear Corporation has reviewed the above referenced Staff Technical Position Paper and comments related to specific items are attached.

In general, the scope of this position paper, which attempts to cover both uranium mill tailings and uranium solution mining, is not appropriate due to the inherent differences in monitoring and operation of these facilities. Further, based upon the existing proliferation of NRC staff positions, regulatory guides, etc., which address these same issues, we can see no reason or justification for adoption of such a Staff Position Paper. Currently, as indicated on page 1, eleven (11) such "guidance" documents already exist. At this time, we recommend that existing NRC staff positions be evaluated and corrected based upon public comments prior to adoption of additional "interim guidance" which deals with essentially the same subject matter.

The methods and techniques which are suggested in this and other staff positions do not comprehend the site specific conditions or requirements which may be encountered in development of an operation. Therefore, strict adherence to all items enumerated in staff positions would result in unreasonable additional costs to the industry without commensurate benefits to the environment.

Very truly yours,

W. J. Shelley

W. J. Shelley, Vice President
Nuclear Licensing & Regulation

NRC Draft Technical Position Paper
Hydrogeological Characterization of Uranium
Solution Mine and Mill Tailings Disposal Site

3. Staff Position: Existing groundwater supplies should not be deteriorated such that current or potential use classification are changed.

Comment: No criteria or evaluation of "potential use classifications" are provided in this staff position. Such criteria are, however, provided in State regulatory frameworks which specifically identify industrial and mining operations as a use classification and allow for appropriative uses in conjunction with these activities. Therefore we assume that "use classification" in this context include these current and potential uses (eg. industrial and mining). This should be clarified in the text.

3.1.1.2 Soils pg. 4. (Note: This type of data pertains primarily to uranium mill tailings disposal and evaporation pond sites.)

Comment: Data generated under this part would serve no purpose in evaluation of in-situ mining or in conjunction with lined evaporation ponds.

3.1.1.3 Surface Water (Parts a-e)

Comment: Most of the information requested under these parts (a-e) would serve no purpose in evaluating a uranium in-situ mining operation. Again only those data which have a reasonable expectation of being useful in the overall evaluation of a project should be required.

3.1.2.2. Hydrostatigraphy Regional and site specific hydrostatic section(s) delineating aquifers, aquicludes, and aquitards.

Comment: The use of regional data must be qualified and tied to a

reasonable area of expected influence. If no reasonable expectation exists for impacts resulting from an operation, such regional data would serve no useful purpose.

3.1.2.2b Water levels in the confined and unconfined aquifers determined and water table and potentiometric maps prepared.

Comment: The above statement implies all aquifers in the area, i.e. "confined and unconfined", without limitation. This requirement should be restricted to those aquifers reasonably expected to be affected by the operation. In solution mining this would be the aquifer to be leached.

3.1.2.4.a Groundwater users approximately 2 miles of site boundaries indicating quantities used, potential use(s), quality, source aquifers, registered and unregistered wells.

Comment: The data requested is arbitrary and not based upon an evaluation of potential project impacts. Frequently, requested information is not available and in many cases there is no record on a well. This item should be limited to information that can be determined from public record and a reasonable survey of the property.

3.1.2.5. Hydraulic properties of the aquifers ---

Comment: This requirement should be limited to aquifers reasonably expected to be affected by the operation. To do otherwise, would place an unnecessary burden on the licensee with little or no compensating benefit to the environment.

3.1.2.6. Hydrogeochemical and hydraulic properties of potentially affected hydrostatigraphic units, - - -

Comment: "Potentially" should be deleted and replaced with "reasonably expected to be" to imply there is a reasonable probability that the incident would occur, not that there is a set of assumptions

and theories under which it could occur.

Appendix A-2.2.3 - The last sentence under flow log states "In all open holes, a caliper log is a must when radiation logs are to be interpreted".

Comment: This statement incorrectly implies a caliper log must be run on every drill hole. The bore hole size, which is an important consideration, is controlled in most cases through the drilling program with only limited use of caliper logs.

Appendix A-3 - Designing a geophysical logging program - - -

Comment: Under the optimum geophysical well logging program:

Item 2. The reference to 4 inch hole diameter should be deleted because optimum hole size will depend on the logging equipment to be used.

Item 4. The drilling fluid cannot be removed in most areas as one of the primary purposes of the drilling fluid is to provide hole stability for drilling and logging.

Item 6. The use of plastic casing must be restricted to applications where it can sustain the physical loads placed on it.