



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

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Mr. Marvin Freeman  
Kerr-McGee Center  
Oklahoma City, Oklahoma 73125

Dear Mr. Freeman:

This letter is to confirm major points of our telephone discussion of June 20, 1980. The conversation took place after the Kerr-McGee Nuclear Corporation in situ mine Environmental Report (ER) had undergone preliminary review by NRC staff. During the phone conversation, we discussed NRC concerns related to setting groundwater quality baseline and evaluation of the groundwater hydrology at the Kerr-McGee R&D uranium in situ extraction site in Converse County, Wyoming. Although detailed written questions will be provided to Kerr-McGee in the future, the below items were discussed with you to provide ample time for you to develop your responses.

It was requested that Kerr-McGee take the following steps in establishing baseline groundwater quality values:

1. Select a laboratory for analysing water quality which uses EPA methods and can reproduce its own results within the limits of the methods used.
2. Take a minimum of three (3) samples from each monitor wells spacing each sampling by a week or more.
3. Analyze the samples for the complete suite of parameters shown in Table 3-2 of the ER. Aside from what you and I discussed on the phone, the WMUR staff recommends that instead of analyzing for nitrates, Kerr-McGee analyze for ammonia and nitrates plus nitrites.
4. Have the laboratory provide one (1) replication of one sample in ten. If the laboratory is unable to reproduce results from a replicate sample, contamination of the sample may have taken place and a replacement sample would be required.

The pump test submitted in the Kerr-McGee ER was also discussed. Concern was expressed by the NRC staff that the pump test pumping well was not close enough (in terms of map distance) to affect certain wells that are finished in adjacent aquifers. If the wells actually were too far apart, indicators of site leakage would be undetectable. When you said

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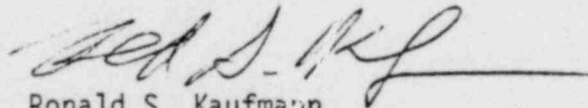
that Kerr-McGee was planning another pump test at the proposed mine site, I recommended that the pumping well be selected so it is suitably close to monitor wells in adjacent aquifers to detect leakage.

It was also requested that a copy of the application submitted to the State of Wyoming, Department of Environmental Quality (DEQ) be sent to the NRC. It was decided, during our conversation, that since the state has requested changes to the permit application and since these changes will be made within a few weeks, Kerr-McGee would send a copy of the updated state application as soon as the changes are completed. In addition, it is requested that Kerr-McGee send appropriate corrected pages to update the NRC application so that both NRC and DEQ applications are compatible.

In response to one of your questions concerning the role of the NRC in setting restoration and Upper Control Limit (UCL) criteria, the NRC will be in touch with DEQ in order to develop a single set of criteria acceptable to both NRC and DEQ.

If you have any questions please feel free to call me (301-427-4539).

Sincerely,



Ronald S. Kaufmann  
Uranium Recovery Licensing Branch  
Division of Waste Management