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URFO:SLW
Docket No. 40-8829

MEMORANDUM FOR: Docket File No. 40-8829
URFO Subject SIS-27

FROM: Sandra L. Wastler, Project Manager, LB1, URFO, RIV

SUBJECT: MEETING MINUTES - JUNE 1, 1983 MEETING BETWEEN NRC
AND NEBRASKA DEPARTMENT OF ENVIRONMENTAL CONTROL
(DEC) REGARDING WYOMING FUEL COMPANY (WFC) CROW BUTTE
IN SITU R&D FACILITY

On June 1, 1983, a meeting was held in Lincoln, Nebraska, between the Nebraska Department of Environmental Control (DEC) and the NRC-URFO. A list of attendees is included as Enclosure 1. The purpose of the meeting was two-fold: 1) to coordinate the DEC and NRC reviews, and 2) to appraise the Nebraska DEC of the status of NRC's review of the WFC application, discuss NRC's findings in the case and to solicit comments from the DEC.

NRC-DEC Coordination

The purpose of the discussion of this topic at the meeting was to gain a better understanding of the State requirements regarding in situ mining and to provide the State with a better understanding of NRC requirements in order to facilitate coordination of the State and NRC reviews. As a result of this meeting, since this has the potential to be the first in situ facility to be licensed by the State of Nebraska under new environmental regulations, an exchange of regulatory documents between the State and the NRC was necessary. The State also provided a generalized overview of the review process as seen under the new regulations. A copy of the draft UIC Procedures are included as Enclosure 2 to this document. Once the State and Federal regulations are reviewed by both parties, there will be further discussions on the coordination of the State and Federal reviews. The goal of our continued discussions will be the development of mutually agreeable review

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criteria. As a result of this meeting, NRC will defer to the State on issues concerning archeology, ecology and water quality classification.

The Chadron aquifer is defined as U.S. drinking water by the State. Therefore, WFC must apply for an exemption to allow mining in the basal Chadron by essentially showing ore zone confinement and the ability to restore the water quality of the aquifer to restoration limits. At the present time, the State expects this hearing to be held in late July to early August 1983.

In the meantime, the State will be continuing their review which will conclude with the issuance of a draft permit and finally, after public notice of 45 days, a public hearing is conducted for a final permit. At the present time, Nebraska DEC has received responses from WFC on their initial questions and has scheduled a meeting with WFC on June 14, 1983, to discuss open issues.

As a result of our meeting, the NRC and State agreed that no position on any significant issues in areas of common concern regarding the Crow Butte site would be issued by either party without consulting the other party beforehand.

DEC - General Comments

As stated previously, the DEC has issued a set of questions to WFC in the course of their review (see Enclosure 3) and had, immediately prior to the meeting, received WFC's responses. Unfortunately, the NRC was unable to obtain a copy of this document due to the inclusion of some proprietary information. One particular concern beyond the questions already asked by the State is the effectiveness of the proposed design of the evaporation ponds considering the annual gross evaporation in the Crow Butte site area. The DEC feels that with an annual gross evaporation rate of approximately 44" per year (see Enclosure 4) the evaporation pond may need to be redesigned with a larger surface area and shallower depth. The design also needs to be carefully evaluated with regard to the winds. In addition, the DEC felt that a water balance was needed in order to physically design the site to avoid possible excursions. The NRC staff agreed with the DEC regarding the concerns noted above.

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NRC Concerns

The NRC staff made an informal presentation to the DEC regarding the status of NRC's review. Roy Williams, NRC advisor, gave a short presentation on the results of his analysis of the Crow Butte aquifer testing program. The major point emphasized by Williams in the presentation was that the analysis had not shown ore zone confinement. Roy Williams suggested a direct and an indirect method by which confinement could be shown. The direct method requires another pump test using the Newman-Witherspoon method where monitoring wells are placed in the upper and lower aquitards. The indirect method would require determining the Pierre Shale, the lower aquitard, to be impermeable based on an analysis of the geophysical logs and, if this determination could be made, then modeling the hydrologic system.

As a result of the discussion generated by his presentation, it was determined that it wouldn't make any difference which method is used unless the contact with Pierre Shale isn't as smooth as shown on cross-sections. An analysis of a representative number of geophysical logs is needed to determine whether the contact with the Pierre Shale is smooth or transitional.

The NRC staff then reviewed the draft initial review questions with the Nebraska DEC. The DEC comments were minimal since the NRC questions essentially paralleled those submitted by DEC to WFC.

At the conclusion of the meeting, the NRC-URFO proposed a site visit for early July and requested a DEC representative to attend, if possible.

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Sandra L. Wastler, Project Manager
Licensing Branch 1
Uranium Recovery Field Office, RIV

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Approved by:

John J. Linehan, Chief
Licensing Branch 1
Uranium Recovery Field Office, RIV

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Enclosures:

- 1. List of meeting attendees
- 2. Draft UIC Procedures
- 3. DEC questions to WFC
- 4. Lake evaporation charts

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