

July 18, 2000

Mr. Michael L. Griffin
Manager of Environmental and Regulatory Affairs
Crow Butte Resources, Inc.
86 Crow Butte Road
Post Office Box 169
Crawford, NE 69339-0169

SUBJECT: STAFF REVIEW OF THIRTY DAY REPORT POND 4 LEAK, CONDITION 12.2,
LICENSE NO. SUA-1534

Dear Mr. Griffin:

The NRC staff has completed its review of the June 16, 2000, thirty-day report for Pond 4 required by License Condition 12.3. From the data submitted, it appears that water from the pond has leaked through the liner into the underdrain system, but has not leaked through the second underlying liner into the ground water. The staff has concluded that Crow Butte Resources, Inc. has taken timely and appropriate action in responding to the leak in the first liner of Pond 4.

At the Crow Butte site, Pond 4 has an underdrain, which is located between two liners. Crow Butte Resources, Inc. reported that on May 6, 2000, water quality sampling from the northwest underdrain of Evaporation Pond 4 discovered a leak. Following discovery of the leak, Crow Butte Resources, Inc. began weekly sampling of the northwest underdrain water for the pond indicator parameters; alkalinity, chloride, sodium, conductivity, and sulfate (in compliance with License Condition 11.4). In addition to the weekly analysis of the underdrain, Crow Butte Resources, Inc. obtained a ground-water quality sample from pond monitor well CPM-1, which is located down gradient, at the fenced restricted area boundary of Pond 4 in the first underlying aquifer. Water quality analysis for the pond indicator parameters did not detect any solutions from the pond.

On May 19th, the water level in Pond 4 was lowered by pumping water from Pond 4 into Pond 3. With the lowering of the water levels, a visual inspection of the pond identified a liner patch with a poorly welded seal in the same quadrant where the leak was detected. No other leaks were identified. On June 7, 2000, Serrott International performed repairs on the pond liner. Failure of the patch from a "cold weld" was confirmed. The failed patch was replaced with a 60-mil thick high-density polyethylene patch and vacuum tested for integrity. Testing indicated a good seal on the patch.

Two other patches were tested and passed integrity tests. In addition, two excursion beads

were patched and passed integrity tests. Following completion of this work, water was transferred from Pond 1 into Pond 4 to raise the water levels. The northwest underdrain was flushed with clean water and is currently being pumped dry so that the success of the repairs can be evaluated. When this process is completed, the underdrain will be inspected and sampled to determine if there are other areas of leakage. If the concentration of pond indicator parameters remain elevated in the northwest underdrain, the pond water level will be lowered and inspections will be performed to determine whether there are other areas of potential liner leakage. Daily underdrain level measurement and weekly analysis of underdrain water will be continued until all leaks have been located and repaired.

The staff has concluded that Crow Butte Resources, Inc. has taken timely and appropriate action in responding to the leak in the first liner of Pond 4. From the data submitted, it appears that water from the pond has leaked through the liner into the underdrain system, but has not leaked through the second underlying liner into the ground water. The staff agrees with the proposed action to continue weekly sampling of underdrain water until it can be confirmed that all leaks have been located and repaired. Crow Butte Resources, Inc. is reminded that License Condition 11.4 also requires that the water quality in the affected standpipe shall be analyzed for the five pond indicator once every 7 days for at least 14 days following repairs.

Written notice should be sent to the NRC when all leaks have been located and the underdrain system cleaned so that any future leaks can be identified should they occur. Furthermore, a progress report should be submitted to the NRC by November 1, 2000, if all the leaks have not been repaired and the underdrain system restored for Pond 4 by October 1, 2000. This report should (1) describe the mitigative actions taken, (2) discuss the results of those actions, (3) describe future actions to be taken, and (3) identify when they will be taken.

If you have any questions, please contact the NRC Project Manager, Mr. William Ford, at (301) 415-6630.

Sincerely,

/RA/

Philip Ting, Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety
and Safeguards

Docket No. 40-8934
License No. SUA-1534

cc: Stephen P. Collings, CBR, Denver
Dave Miesbach, Nebraska, UIC, DEQ
Dave Carlson, Nebraska, UIC, DEQ
Cheryl K. Rogers, Nebraska, RMP, PHA

If you have any questions concerning this amendment, please contact the NRC Project Manager, Mr. William Ford, at (301) 415-6630.

Sincerely,

/RA/

Philip Ting, Chief
 Fuel Cycle Licensing Branch
 Division of Fuel Cycle Safety
 and Safeguards

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