

CROW BUTTE RESOURCES, INC.



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July 24, 2009

Mr. Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
U.S. Nuclear Regulatory Commission
Mail Stop T8-F5
Washington D.C. 20555-0001

Subject: Request for Alternate Decommissioning (Groundwater Restoration)
Schedule
Source Materials License SUA-1534
Docket Number 40-8943

Dear Mr. McConnell:

Introduction

In conformance with 10 CFR Part 40.42(d), Crow Butte Resources, Inc. (CBR) must notify the Nuclear Regulatory Commission (NRC) and initiate decommissioning (groundwater restoration) in accordance with its approved restoration plan within 60 days of a decision to permanently cease injection of lixiviant in a particular mine unit. By letter dated April 19, 2004, License Amendment 17 to Source Material License SUA-1534, NRC approved CBR's request to amend License Condition 10.3C to incorporate by reference the Groundwater Restoration Plan (Revision 3). Also, CBR's Underground Injection Control (UIC) Permit Number NE0122611 issued by the Nebraska Department of Environmental Quality (NDEQ) requires that CBR submit a plan to restore each mine unit after the cessation of mining activities. As specified in 10 CFR Part 40.42(h)(1), CBR must also complete mine unit restoration within 24 months after mine unit restoration is initiated. If mine unit restoration requires more than 24 months, 10 CFR Part 40.42(h)(2)(i) allows the NRC to approve a request for an alternate schedule for completion of decommissioning if certain conditions are met. These conditions are included in the following summary of the restoration activities at CBR. Based on these conditions CBR is requesting an alternate restoration schedule as described below.

Mine Unit 2

The restoration plan for this mine unit was submitted to NDEQ on December 5, 1995 and was approved by NDEQ in a letter dated December 15, 1995. Injection of lixiviant into this mine unit ceased on January 2, 1996. Since that time period, the mine unit has been in IX and RO treatment with the following exception.



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On August 9, 2007 the entire restoration circuit was shutdown so that changes could be made to increase the flow through IX and RO treatment. During this time period the mine unit was in recirculation to maintain a hydrologic bleed until April 1, 2009, when IX treatment resumed in this mine unit. On May 26, 2009, the RO circuit was restarted and this mine unit was placed back into RO treatment. Complete restoration including regulatory approval of this mine unit should be completed by July 1, 2012.

Mine Unit 3

The restoration plan for this mine unit was submitted to NDEQ on March 24, 1999 and was approved verbally by NDEQ in April 1999. Injection of lixiviant into this mine unit ceased on July 22, 1999. Since that time period the mine unit has been in IX treatment with the same exceptions as Mine Unit 2. On April 1, 2009, IX treatment was resumed in this mine unit. Complete restoration including regulatory approval of this mine unit should be completed by July 1, 2013.

Mine Unit 4

The restoration plan for this mine unit was submitted to NDEQ on March 4, 2003 and was approved by NDEQ in a letter dated August 26, 2003. Injection of lixiviant into this mine unit ceased on October 31, 2003. Since that time period the mine unit has been in IX treatment with the same exceptions as Mine Unit 2. On April 1, 2009, IX treatment was resumed in this mine unit. Complete restoration including regulatory approval of this mine unit should be completed by January 1, 2015. On December 17, 2008, a Bioremediation Field Study was started on six production wells in Wellhouse 9. An emulsified oil substrate has been injected into the formation to stimulate the growth of reducing microorganisms. After one year, the study will be reviewed for the effectiveness of using emulsified oils to help restore a mine unit.

Mine Unit 5

The restoration plan for this mine unit was submitted to NDEQ on July 9, 2007 and was approved by NDEQ in a letter dated August 6, 2007. Injection of lixiviant into this mine unit ceased on August 14, 2007. Since that time period the mine unit has been in IX treatment with the same exceptions as Mine Unit 2. On April 1, 2009, IX treatment was resumed in this mine unit. Complete restoration including regulatory approval should be completed by July 1, 2016.

Restoration Upgrade

On August 9, 2007 the restoration circuit was shutdown so that the following changes could be made to the circuit. 1. Three exiting IX Treatment columns were moved from the Central Processing Plant to the RO Building. An additional IX column and piping were added to this circuit increasing the IX Treatment flow from 750 GPM to 1500 GPM.



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2. The two existing RO units were decommissioned and a new unit was constructed so that the RO Treatment flow could be increased from 100 GPM to 600 GPM. 3. Extensive piping changes were made in the wellfields so that the mine units in restoration could be isolated from the Central Processing Plant. 4. Piping changes were made to the waste water circuit to handle the increased restoration flow. This included re-tubing of the deep disposal well from 2.375 inch to 4 inch stinger pipe and the addition of two new transfer lines from the Central Processing Plant to the Commercial Evaporation Ponds and the Deep Disposal Well. 5. A consultant was hired to do hydrologic modeling and sequencing of the mine units in restoration. 6. IX Treatment was re-started on April 1, 2009 and RO Treatment was re-started on May 26, 2009.

Conclusion

Attached is a schedule that displays the timeline for the various phases of restoration for each mine unit. This schedule is based on the flow capacity through the IX and RO circuits, the volume of waste water generated in these circuits, and the pore volume of each mine unit. The size of the mine units, flow and piping capacity of the restoration circuit, deepwell disposal capacity, and the need to maintain a hydrologic balance between the mining and restoration units, makes it technically infeasible to restore each mine unit in a two year period. CBR believes that the alternate schedule is technically feasible and will not be detrimental to the public health and safety and is otherwise in the public interest.

If you have any questions, please feel free to contact me at (720) 879-5518 or Larry Teahon at (308) 665-2215 ext 114.

Sincerely,
Crow Butte Resources, Inc.

A handwritten signature in cursive script that reads "Stephen P. Collings".

Stephen P. Collings
President

Attachments: As Stated

cc: Jenny Abrahamson, UIC/ME Program Manager
Nebraska Department of Environmental Quality
PO Box 98922
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CBR File

