

CROW BUTTE RESOURCES, INC.

86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169



(308) 665-2215
(308) 665-2341 – FAX

July 7, 2004

Mr. Gary Janosko
Branch Chief
Fuel Cycle Licensing Branch
Division of Fuel Cycle Safety and Safeguards
c/o Document Control Desk
U.S. Nuclear Regulatory Commission
Washington D.C. 20555

Subject: License Amendment Request
Source Materials License SUA-1534
Docket Number ~~40-8943~~

Dear Mr. Janosko:

Crow Butte Resources, Inc. (CBR) is submitting this request for an amendment to Source Materials License SUA-1534. Specifically, CBR requests that the U. S. Nuclear Regulatory Commission (NRC) amend SUA-1534 to approve the attached Wellfield Decommissioning Plan dated June 2004. CBR is required by NRC to decommission areas within the site boundary following completion of active mining. Part of this decommissioning involves the reclamation of a mine unit following successful completion of groundwater restoration activities. Reclamation involves proper plugging and abandonment of all wells within the mine unit boundary, removal of surface and subsurface structures, utilities, and pipelines, and removal of surface and subsurface radiological contamination.

The NRC regulates the decommissioning of facilities and surface and subsurface soils for the cleanup of radiological contamination. Consideration of other hazardous materials is also required. The requirements for surface and subsurface reclamation are contained in 10 CFR Part 40 Appendix A. CBR's Source Materials License SUA-1534 further specifies actions that must be taken for release of facilities and decommissioning planning.

The purpose of the attached Wellfield Decommissioning Plan is to provide instructions that will ensure that CBR complies with the regulatory requirements of NRC. CBR requests that NRC amend the following License Conditions.



Mr. Gary Janosko
July 7, 2004
Page 2

License Condition 12.5

License Condition 12.5 states:

12.5 The licensee shall submit a detailed decommissioning plan to NRC for review and approval at least 12 months prior to planned shutdown of well field extraction operations.

The attached Wellfield Decommissioning Plan comprises a portion of the detailed decommissioning plan required by License Condition 12.5 and contains the following elements:

1. The results and analysis of additional background studies are provided to update the pre-operational characterization previously submitted during the Crow Butte licensing process. The original characterization was performed in accordance with the guidance contained in Regulatory Guide 4.14¹. The additional studies were performed in May 2004 and are based on the current recommendations contained in MARSSIM² and NUREG-1569³;
2. The results and analysis of a characterization survey performed in May 2004 were used to develop a final verification plan for soils;
3. Wellfield decommissioning methods are described including well plugging and abandonment, removal of trunk lines, pipes, and wellfield equipment, and decommissioning of small wellfield buildings;
4. Disposition options and release survey requirements for materials and equipment are discussed;
5. Methods for cleanup of surface and subsurface soils are provided;
6. The determination of the derived "benchmark" dose and soil concentration criteria for cleanup of byproduct material is provided, including the results of modeling performed using the RESRAD code;
7. Soil cleanup and verification methods are described;
8. The radiation safety program elements that will be implemented during wellfield decommissioning activities are described; and
9. A discussion of the environmental affects of decommissioning activities is included.

¹ NRC Regulatory Guide 4.14, *Radiological Effluent and Environmental Monitoring at Uranium Mills*, Revision 1, April 1980.

² NRC, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*, NUREG 1575, August 2000.

³ NRC, *Standard Review Plan for In Situ Leach Uranium Extraction License Applications*, NUREG-1569, June 2003.



Mr. Gary Janosko
July 7, 2004
Page 3

CBR requests that License Condition 12.5 be amended to approve the attached Wellfield Decommissioning Plan as follows:

The licensee shall submit a detailed decommissioning plan to NRC for review and approval at least 12 months prior to planned shutdown of well field extraction operations. The licensee shall conduct wellfield decommissioning activities in accordance with the wellfield decommissioning plan submitted by letter dated July 7, 2004.

License Condition 9.8

License Condition 9.8 states:

9.8 *Release of equipment, materials, or packages from the restricted area shall be in accordance with the NRC guidance document entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated May 1987, or suitable alternative procedures approved by NRC prior to any such release.*

Section 5.0 of the attached Wellfield Decommissioning Plan discusses material and equipment release survey requirements and requests the removal of monitoring requirements for the beta-gamma dose rate. This requirement has been eliminated by more recent consensus standards and CBR has never found the beta-gamma dose limiting for release of materials or equipment. Section 5.0 contains a technical discussion of the efficacy of continuing these measurements at the Crow Butte project.

CBR requests that License Condition 9.8 be amended to modify the approved equipment, material, or package release survey methods as follows:

9.8 *Release of equipment, materials, or packages from the restricted area shall be in accordance with the NRC guidance document entitled "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated May 1987, the wellfield decommissioning plan submitted by letter dated July 7, 2004, or suitable alternative procedures approved by NRC prior to any such release.*

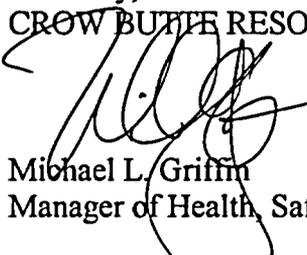
CROW BUTTE RESOURCES, INC.



Mr. Gary Janosko
July 7, 2004
Page 4

If you have any questions concerning this amendment request, please feel free to contact me at (308) 665-2215.

Sincerely,
CROW BUTTE RESOURCES, INC.



Michael L. Griffin
Manager of Health, Safety, and Environmental Affairs

Attachments: As Stated

cc: U.S. Nuclear Regulatory Commission
Mr. John Lusher - ADDRESSEE ONLY
Fuel Cycle Licensing Branch
Mail Stop T-8A33
Washington, DC 20555

Nebraska Department of Environmental Quality
Mr. Dave Miesbach
Underground Injection Control Program Coordinator
P.O. Box 98922
Lincoln, Nebraska 68509-8922