CROW BUTTE RESOURCES, INC.

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October 3, 2003

Ms. Susan Frant
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: Reporting Requirements of 10 CFR Part 40
Source Materials License SUA-1534
Docket Number 40-8943

Dear Ms. Frant:

During the recent annual inspection of the Crow Butte Uranium Project and subsequent discussions with NRC staff, Crow Butte Resources, Inc. (CBR) was questioned concerning the potential reportability under the requirements of 10 CFR Part 40, Appendix A, of certain yellowcake dryer events. In the past several years, CBR has experienced several situations where the yellowcake dryer vacuum system failed to maintain minimum vacuum levels during drying operations. These events were not formally reported to the NRC. Criterion 8 of Appendix A requires that "...cessations, corrective actions, and restarts..." of "...effluent control devices..." be reported to the appropriate NRC regional office.

CBR has conducted a review of the Part 40 reporting requirements and the licensing basis for SUA-1534. Based on this review, CBR believes that yellowcake vacuum dryers of the type used at Crow Butte are not subject to the reporting requirements in Appendix A, Criterion 8. This conclusion is based on the design of the vacuum dryer. Vacuum dryers do not produce particulate emissions because they are operated under a negative pressure. Air is withdrawn from the drying chamber by the vacuum system and directed through bag filters. The moisture-laden air is then recirculated through a closed-loop condenser where any remaining particulates are entrained in the condensate and directed back to the process circuit. With this design, there is no discharge stack and no airborne discharge to the environment. For this reason, vacuum dryers are commonly referred to as "zero discharge" dryers.

The vacuum system must function as designed to maintain a negative pressure on the drying chamber. When this system fails to function properly, material in the drying chamber can potentially escape into the dryer enclosure room. Under these conditions,

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the enclosure could potentially meet the definition of an airborne radioactivity area from 10 CFR §20.1003. Due to this potential, License Condition 10.8 of SUA-1534 requires that the dryer room be closed and posted as an airborne radioactivity area when vacuum cannot be maintained at an acceptable level. Drying and packaging operations must also be suspended until the system vacuum is restored. These operating restrictions contained in License Condition 10.8 are in place to control potential releases in the dryer room that could result in additional occupational exposure. These restrictions are not intended to prevent an environmental release.

It is CBR's opinion that Criterion 8 of Appendix A applies to the control of airborne effluents at uranium recovery facilities. When the "effluent control devices" referred to in Criterion 8 fail to operate as specified, increased airborne effluent releases may result from dryers that incorporate scrubber and discharge stack systems. Failures of these types of systems could present an increased risk to public health and safety and the environment, which is the basis for requiring notification of the NRC regional office. A failure of the vacuum system on a dryer of the type installed at Crow Butte would not present a similar environmental risk. Therefore, these events should not be reportable under Criterion 8.

If you have any questions, 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
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