September 27, 2001

Mr. John M. Ferriter
Director, Operations, Remediation and Restoration
U.S. Army Soldier and Biological Chemical Command
AMSSB-RCB-RS
5183 Black Hawk Road
Aberdeen Proving Ground, MD 21010-5423

SUBJECT: ACCEPTANCE REVIEW OF JEFFERSON PROVING GROUND DECOMMISSIONING PLAN (TAC #L52058)

Dear Mr. Ferriter:

I am responding to your letter of June 27, 2001, which forwarded the Jefferson Proving Ground (JPG) decommissioning plan (DP) for U.S. Nuclear Regulatory Commission (NRC) staff review and approval. The NRC staff has performed an acceptance review of the JPG DP and noted a number of deficiencies that must be corrected before the staff can initiate a technical review. A summary of these deficiencies is given in the following attachment. It is anticipated that the environmental report, to be submitted by the Army in late October, will answer some of the questions raised during the acceptance review. We would like to discuss the deficiencies in the DP in order for the Army to understand NRC's concerns and how these concerns are going to be addressed by the Army, and to develop a schedule for resubmission of the DP. Please note that the technical review may identify omissions in the submitted information or technical issues not identified during the administrative review that require additional information.

If you have any questions, please contact me at (301) 415-5869.

Sincerely,

/RA/

Tom McLaughlin, Project Manager
Facilities Decommissioning Section
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards

Docket No.: 040-08838
License No.: SUB-1435

Enclosure: Summary of the JPG DP Deficiencies

Mr. John M. Ferriter
Director, Operations, Remediation and Restoration
U.S. Army Soldier and Biological Chemical Command
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NAME	TMcLaughlin		RNelson	
DATE	09/27/01		09/27/01	

Summary of the JPG DP Deficiencies

An acceptance review of the U.S. Army Jefferson Proving Ground's Decommissioning Plan (DP) was performed by NRC staff. The following deficiencies were noted.

1. To support license termination, the licensee has evaluated two main scenarios using RESRAD version 6.0 in the dose assessment of the depleted uranium (DU) impact area. The dose assessment scenarios presented in the DP do not account for possible off-site transport of DU and subsequent exposure to receptors. Therefore, the DP should be revised to include an additional dose assessment for surface water and groundwater users off-site. This scenario should include the potential DU transport pathways: (1) drinking ground/surface water contaminated with DU; (2) ingesting vegetables that have been irrigated with DU contaminated ground/surface water; and (3) ingesting milk and meat from livestock that have ingested DU contaminated ground/surface water and DU contaminated ground/surface water irrigated crops and forage. This additional dose assessment scenario is required to adequately assess the impact soluble or particulate DU from stream flow or groundwater would have on potential receptors.

2. The licensee needs to include an assessment of the potential for ingestion of DU in meat from deer, turkeys, fish, and other wildlife that have been exposed to DU. Data used for this assessment should represent current conditions of DU concentrations in wildlife tissue and human consumption rates. The assessment is needed in order to calculate the potential amount of DU ingested by off-site receptors.

3. The licensee needs to evaluate the potential for the DU penetrators to be carried by Big Creek flood waters down stream from the DU impact area. This information is needed to understand the possible transport mechanisms of the DU from the impact area to off-site areas. The potential impact of other natural events, such as a tornado or earthquake, on off-site transport of DU needs to be evaluated.

4. The dose assessment scenarios rely heavily on model default parameters. Licensees may use default values for behavioral and metabolic parameters (primarily those described for D and D) as long as the values are consistent with the definition of the average member of the critical group. Physical parameters should be justified. Site specific data are an important part of an EIS evaluation and should be provided if they are reasonable to measure.

5. Section 3.4.3 identifies heavy fog as potentially resulting in ground deposition of airborne radionuclides. However, this information should either be included or justified for elimination from the dose estimates provided as either an on-facility or off-facility transport pathway.

Enclosure

6. Water control structures such as beaver dams are briefly discussed in Section 3.6.5. The licensee should identify what impact ponds or marsh areas would have on the DU. This information is needed to determine if additional water in the DU impact area would affect the degradation of the DU or enhance off-site transport.

7. The composition of the DU should be completely characterized. There are recent reports that DU may contain impurities such as plutonium, americium, technetium, neptunium, and uranium-236. The composition of the DU is needed to determine the effect of the DU on human health and the environment.