

October 11, 2001

Commander  
U.S. Army Soldier and Biological Chemical Command  
ATTN: AMSSB-RCB-RS  
Aberdeen Proving Ground, MD 21010-5424

SUBJECT: NRC INSPECTION REPORT 04008838/2001-001(DNMS)

Dear Sir or Madam:

This refers to the routine inspection conducted at the Jefferson Proving Ground on September 19, 2001. The enclosed copy of our inspection report details the results of the inspection.

Within the scope of the inspection, no violations of NRC requirements were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Should you have any questions regarding the inspection, please do not hesitate to contact Dr. Peter Lee at (630) 829-9870 or me at (630) 829-9615.

Sincerely,

*/RA/*

Bruce L. Jorgensen, Chief  
Decommissioning Branch

Docket No. 04008838  
License No. SUB-1435

Enclosure: Inspection Report 04008838/2001-001(DNMS)

cc w/encl: J. Kuykendall, US Army  
K. Knouf, US Army  
P. Cloud, US Army  
J. Smith, Indiana State Department  
of Health

DOCUMENT NAME: G:\SEC\JPG2001-001.WPD

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Commander

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 04008838  
License No: SUB-1435

Licensee: Department of the Army

Facility: Jefferson Proving Ground

Location: Madison, Indiana

Date: September 19, 2001

Inspector: P. J. Lee, Ph.D., CHP, Radiation Specialist

Approved By: Bruce L. Jorgensen, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

## **EXECUTIVE SUMMARY**

### **Jefferson Proving Grounds NRC Inspection Report 04008838/2001-001(DNMS)**

This was a routine safety inspection to evaluate the licensee's security and environmental monitoring programs at Jefferson Proving Ground. The inspector determined that the security program was adequate and environmental monitoring confirmed that there was no migration of the DU (depleted uranium) from the DU impact area.

No violations of NRC requirements were identified.

## Report Details

### **1.0 Background**

Jefferson Proving Ground (JPG) was originally issued Source Material License No. SUB-1435, on December 16, 1983, which authorized the possession of depleted uranium (DU) for DU projectile testing. The DU projectiles were fired at soft targets and impacted on the ground beyond the targets in the Delta Impact Area. Projectiles were periodically recovered from the impact area and stored onsite prior to shipment back to the manufacturer. Firing of DU projectiles continued until September 1994. Overall, the JPG firing range comprises 52,000 acres. The DU impact area is comprised of approximately 2,000 acres located in the south central portion of the firing range. Approximately 80,000 kilograms of DU projectiles remain in the impact area.

On October 11, 1995, representatives from the Indiana State Department of Health contacted the NRC Division of Waste Management, regarding concerns about the degraded condition of the fence line surrounding the firing range. The NRC issued a Confirmatory Action Letter (CAL) dated October 13, 1995, confirming actions to be taken regarding the fencing and security of the firing range as agreed upon during an October 12, 1995, conference call with Army staff. The CAL also confirmed the NRC's understanding that Army staff would provide a plan to ensure adequate security of radioactive material at JPG and to ensure that perimeter gates were monitored or locked.

### **2.0 Security and Posting**

#### a. Inspection Scope

The inspector interviewed individuals responsible for site security and toured the perimeter of the DU impact area and the security fence surrounding the facility.

#### b. Observations and Findings

To provide for security, a fence surrounds the JPG facility, and all gates (except the main gate) are locked 24 hours a day. Guards are posted at the main gate 24 hours a day, and access to the site is restricted to those individuals authorized by the Site Manager.

A full-time employee monitors and maintains the security fence. The security fence was inspected daily. Sufficient funds have been set aside to allow timely repair of any damage to the fence. The inspector noted that the security fence appeared to be well maintained and in good repair.

All roads approaching the DU area were barricaded. Warning signs were posted with the Radiation Hazard symbol and the words "Caution, Radioactive Materials" around the perimeter of the DU area. The distances between the signs were within 200 feet, and the condition of the signs was inspected weekly.

#### c. Conclusions

The security program at JPG continued to be adequate.

### **3.0 Environmental Monitoring Program**

#### a. Inspection Scope

The inspector reviewed the licensee's environmental radiation monitoring program and the sampling results to assess potential migration of depleted uranium from the DU impact area.

#### b. Observations and Findings

Environmental monitoring was conducted biannually by the U.S. Army Center for Health Promotion and Prevention Medicine. The inspector toured the locations where samples were taken. The ground water monitoring wells appeared to be well maintained.

The analysis of the soil, sediment, surface water and ground water samples resulted in no levels of activity above the background.

#### c. Conclusions

The environmental radiation monitoring program appeared to be adequate. There were no indications of migration of DU from the DU impact area.

### **2.0 Exit Meeting**

The inspectors met with P. Cloud of the Soldier and Biological Chemical Command on September 19, 2001, summarizing the preliminary findings.

#### **PARTIAL LIST OF PERSONS CONTACTED**

- J. Kuykendall, Soldier and Biological Chemical Command
  - \* P. Cloud, Soldier and Biological Chemical Command
  - K. Knouf, Site Manager, JPG
- \* Indicates individual present during the exit meeting on September 19, 2001.

#### **INSPECTION PROCEDURE USED**

IP 87104: Decommissioning Inspection Procedure for Materials Licensees