DEPARTMENT OF THE ARMY
ROCK ISLAND ARSENAL
1 ROCK ISLAND ARSENAL
ROCK ISLAND, IL 61299-5000

10 DEC 2003

REPLY TO ATTENTION OF:
Office of the Commander

Mr. Daniel M. Gillen, Branch Chief
Decommissioning Branch
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Gillen:

Reference our letter of October 27, 2003, and telephone conversation and E-mail instructions from Dr. Tom McLaughlin, HQ, NRC, regarding additional information required for processing our request for amendment to the Jefferson Proving Ground License Number SUB1435. A NRC Form 313, which includes my signature as the license certifying official, is provided as attachment to this letter. In addition, we have made the appropriate revisions to the existing JPG Security Plan that reflects the change in command designation and it is also provided with this letter. No additional changes were made in the interest of maintaining the document as it stands in the current approved NRC license.

I am forwarding a copy of this letter to AMC Safety Office, Headquarters, U.S. Army Materiel Command, (AMCPE-SF), 5001 Eisenhower Avenue, Alexandria, Virginia 22333-0001.

Ms. Joyce Kuykendall, SBCCOM Radiation Safety Officer, may be contacted for additional information at (410) 436-7118, facsimile (410) 612-5377 or by E-mail at joyce.kuykendall@us.army.mil.

Sincerely,

Mike G. Mullins
Colonel, U.S. Army
Commanding

CF:
HQAMC, AMCPE-SF, 5001 Eisenhower Avenue, Alexandria, VA 22333-0001
SBCCOM (Joyce Kuykendall)

NRC FORM 313 U.S. NUCLEAR REGULATORY COMMISSION
(10-2002)
10 CFR 30, 32, 33, 34, 35, 36, 39, and 40

APPLICATION FOR MATERIAL LICENSE

APPROVED BY OMB. NO. 3150-0120 EXPIRES: 10/31/2005

Estimated burden per response to comply with this mandatory collection request: 7 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO

SAM NUNN ATLANTA FEDERAL CENTER
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-8931

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*
   - ☐ A. NEW LICENSE
   - ☑ B. AMENDMENT TO LICENSE NUMBER SUB 1435
   - ☐ C. RENEWAL OF LICENSE NUMBER

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include ZIP code)*

Commander
Rock Island Arsenal
ATTN: AMSTA-RI-CO
Rock Island, IL 61299-5000

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Jefferson Proving Ground
Madison, IN 47250-5100

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Joyce E. Kuykendall, Radiation Safety Officer

TELEPHONE NUMBER

(410) 436-7118

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number b. chemical and/or physical form and c. maximum amount

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT

12. LICENSE FEES *(See 10 CFR 170 and Section 170.31)*
FEE CATEGORY | AMOUNT ENCLOSED $

13. CERTIFICATION *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39, AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO

CERTIFYING OFFICER – TYPED PRINTED NAME AND TITLE	SIGNATURE	DATE
COL Mike G. Mullins, Commander, Rock Island Arsenal	Mike Mullins	12/10/03

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED $	CHECK NUMBER	COMMENTS
APPROVED BY				DATE	

NRC FORM 313 (10-2002)

JEFFERSON PROVING GROUND (JPG) SECURITY PLAN

1. PURPOSE: This plan outlines the security measures at Jefferson Proving Ground (JPG) during caretaker status.

2. SCOPE: This plan includes both major areas of the proving ground, the northern impact area, and the cantonment area.

3. GENERAL:

a. JPG consists of approximately 55,000 acres in southeastern Indiana. The proving ground is essentially rectangular in shape, oriented north south, approximately 17.2 miles long (north-south) and four-six miles wide (east-west).

b. JPG is divided into two major areas. There is an impact area of approximately 52,000 acres, and a cantonment area in the south of approximately 3,000 acres. The firing line separates the two areas.

c. JPG is about six miles north of Madison, Indiana. The cantonment area and the southern portion of the impact area are in Jefferson County. The western portion of the remaining impact area is in Jennings County, and the eastern portion of the remaining impact area is in Ripley County. The lands surrounding JPG are predominantly farmlands and woodlands.

d. JPG is managed by a three-person site management team. The Indiana Air National Guard maintains a detachment, which has offices in the impact area. They conduct air-ground gunnery operations in the impact area six-seven days per week. The impact area is also a site for unexploded ordnance (UXO) technology demonstration projects. This is jointly managed by the Army and Navy using a contractor to conduct the field trials. The US Army Corps of Engineers is managing an environmental remediation effort in the cantonment area using a contractor. The US Fish and Wildlife Service and the Indiana Department of Natural Resources conduct natural resources surveys throughout the proving ground. They also enforce hunting and fishing regulations.

e. The entire area is fenced with a eight-foot chain-link fence topped with barbed wire. There is approximately 48 miles of fence. Security warning signs are also placed along the fence line to caution persons not to enter the property. The Army has erected a new fence, which crosses the installation from east to west at the firing line and separates the cantonment area from the impact area. All gates through this new fence remain locked. Only authorized parties are allowed to proceed into the north range area.

f. Workers, visitors, and tenants use the main gate into the cantonment area. .

4. RISK MANAGEMENT:

a. There is little of value on JPG. All weapons and ammunition have been removed. Other government personal property not used by those working on the proving ground during caretaker status has also been removed.

b. The proving ground perimeter is fenced, and signs have been placed in conformance with Army regulations. There is no Army requirement for a fence for security reasons. The purpose of the fence is to define the boundary. The fence and signs act as a deterrent to keep unauthorized people off of the installation. Additionally, there are buffer areas (not expected to be contaminated with UXO) approximately 1,500 feet wide inside the east and west perimeter fences and approximately two miles wide inside the north perimeter fence. Interior roads leading to the impact area are also posted with warning signs.

c. The general public is aware of the risks involved in entering the impact area. The presence of unexploded ordnance and depleted uranium in the impact area has been publicly documented in environmental documentation and in the media. The rural nature of the installation, and public awareness of the hazards, significantly reduces the number of unauthorized entries. This is particularly true of unauthorized entries into the impact area.

5. COORDINATING INFORMATION:

a. On 15 April 1995, Indiana Governor Evan Bayh signed and accepted the retrocession of exclusive federal jurisdiction to concurrent jurisdiction for JPG in Jefferson, Jennings, and Ripley counties.

b. The respective county sheriffs have jurisdiction on JPG. They have been briefed on their areas. They have toured the installation and have been shown their respective boundaries. They have been issued keys to the JPG gates to allow ready access. The county sheriffs conduct routine, random patrols on the federal property. The patrol frequency is approximately daily. In addition, the deputy sheriffs are also designated as Deputy Federal Game Wardens.

c. The US Fish and Wildlife Service, and the Indiana Department of Natural Resources, have routine access to the proving ground to conduct surveys and to enforce hunting and fishing laws and regulations.

d. The Indiana State Police also has access to the federal land for patrol and jurisdiction should the need arise.

6. COLLATERAL SECURITY MEASURES:

a. All personnel who work on JPG, government employees or contractors, are advised to report any evidence of crime, trespassing, vandalism, downed fence, etc., to the site management team. These personnel are also advised to report any inappropriate actions, or the presence of any questionable activity, to the site management team. The site management team is responsible for reporting to the Commander, Rock Island Arsenal, Rock Island, IL, concurrently with reports to the US Fish and Wildlife Services, the Indiana Department of Natural Resources, the Indiana State Police, and the county sheriffs.

b. The Indiana Air National Guard monitors the perimeter fence as they travel the perimeter road network to and from their downrange site. They also observe the impact area for unauthorized personnel. Breeches in the fence line or unauthorized personnel are reported to the site management team. The contract personnel working on the UXO technical demonstration project also report breeches in the fence line and unauthorized personnel to the site management team. The US Fish and Wildlife Service and the Indiana Department of Natural Resources personnel also report cuts in the fence or unauthorized personnel to the site management team.

7. COMMAND AND CONTROL:

a. The site management team is part of the staff of the Rock Island Arsenal (RIA), Rock Island, IL, with a duty station at JPG. Their local reporting activity is Rock Island Arsenal, Rock Island, IL.

b. The Army plans to monitor caretaker functions, for the foreseeable future, using the on-site management team, or through an agreement with the state of Indiana.

c. This security plan is reviewed annually by the Rock Island Arsenal and the Nuclear Regulatory Commission (NRC), Radiation Safety Officer.

8. JPG REUSE INFORMATION:

- The Army's intent is to dispose of the real property of JPG south of the firing line. The Army has leased the cantonment area to a private citizen from Madison, Indiana. Title will not pass until the area is determined to be clear of

environmental contamination and UXO. The Jefferson County will utilize about 600 acres for park use. The state of Indiana will use two buildings to establish a recycling center. The Madison Port Authority has purchased a building to house a train engine, 17 miles of track, and has a railroad right-of-way to the building. These actions have not been completed. This would not change the jurisdictional responsibility for the respective sheriff's offices.

9. SECURITY OF JPG DEPLETED URANIUM (DU) AREA:

a. General Description of the Area: The DU area is a 2,000-acre area located inside the 51,000-acre area of JPG, which lies north of the firing line. The DU area has been characterized revealing that most of the DU is located along the three firing lines; it is not evenly distributed in the area. A person walking in the area would have a very small chance of seeing any DU because the area has been surface cleaned and remaining DU is mostly buried or otherwise hidden by grasses and other natural cover. Anyone in the area would receive almost no radiation exposure from the DU because the average radiation levels in the areas of highest DU concentration are only a few times background.

b. Physical Barriers: The larger range area, north of the firing line, is bounded on the west, north, and east sides by the JPG boundary fence (a eight-foot high chain-link fence topped with barbed wire) and on the south, along the firing line, by a new fence of the same type. At each location where a stream crosses the fence line, the fence is replaced by a steel cable, with warning signs attached and suspended cylindrical barriers. (Experience has shown that a fence across a stream collects large amounts of debris, which damages the fence. A steel cable, with warning signs attached and suspended cylindrical barriers, provides acceptable security and safety without the high potential for damage.) The perimeter fence, described above, shall be inspected quarterly. Each inspection shall be documented to include: (1) the date of inspection, (2) the name of the inspector(s), (3) a description of any damage observed, and (4) the location of the damage. For every incident of damage, a record shall be maintained documenting the action taken to make repairs. For any repair that takes more than 60 days, the NRC will be notified and milestones shall be given for completion of the repair. All gates on the perimeter fence shall be kept locked, except when in use, and the keys shall be controlled by the Indiana Air National Guard on-site staff. All roads approaching the DU area are locked and barricaded and marked with a radiation warning sign. All personnel who are allowed into the restricted area shall be instructed not to remove or pass any barricade.

c. Warning Signs: The perimeter fence is posted with warning signs with the words "US Government Property, NO TRESPASSING" (a red, white, and blue sign shaped like a shield), and a warning symbol for dangerous UXO. All roads approaching the DU

area are barricaded and posted with warning signs with the Radiation Hazard symbol and the words "Caution, Radioactive Materials." In addition, 100 additional radiation-warning signs are posted around the perimeter of the DU area.

e. Training:

(1) On Site Personnel: All site management personnel have been given DU safety training by the NRC license Radiation Safety Officer.

(2) Visitors: This includes hunters. All personnel who are allowed entry into the area north of the firing line are given a DU safety briefing, including a description of the properties of DU, the harmful effects of DU, and what to do if contact is made with DU. They shall be instructed not to leave their assigned area. They shall be instructed that the barricades are placed at each approach to the DU area, that they shall not remove or pass any barricade, and that they shall report any violation of these rules to the on-site staff. Hunters that may have inadvertently entered the DU contamination area shall be monitored for radioactive contamination at the check station as they leave.

f. Risk Assessment for the DU Area of JPG: See enclosure.

RISK ASSESSMENT FOR THE DEPLETED URANIUM (DU) AREA OF JEFFERSON PROVING GROUND

HAZARD	SUPPORTING FACTORS (THAT MAY BE PRESENT)	MITIGATING FACTORS
Health hazard from exposure to depleted uranium (DU) in the range impact area	1. Access to DU impact area. 2. Access to DU in significant quantities. 3. Significant internal or external DU exposure.	1.a. Entire range area surrounded by chain-link fence. 1.b. Outer perimeter fence posted with security warning signs. 1.c. All roads leading to DU impact area are barricaded and posted with radiation caution signs. 100 additional signs posted around perimeter of DU impact area. 1.d. Unauthorized access is monitored by site management staff. Authorized users are area law enforcement agencies. 1.e. All personnel with authorized entry to north range area are briefed on hazards existing and instructed to stay on main roads. 1.f. Hunting program includes briefing of hunters, assignment to specific areas, and monitoring by local site management officials and the US Fish and Wildlife Service game wardens.

RISK ASSESSMENT FOR THE DEPLETED URANIUM (DU) AREA OF JEFFERSON PROVING GROUND

MITIGATING FACTORS CONTINUED	MITIGATING FACTORS CONTINUED	RESIDUAL HAZARDS
2.a. Accessible surface DU was cleaned up by JPG staff prior to closure of JPG ranges. 2.b. Radiac meters necessary to find any remaining DU fragments. 2.c. Site scooping and characterization studies show very limited surface contamination in only a small percentage of DU impact area. 2.d. Historical experience by JPG and scooping and characterization contractors showed no contamination of personnel from extensive movement in and around the DU area.	3.a. Large, or for that matter, any, quantities of DU are not readily accessible in the impact area (due to past clean up, buried, or covered by dense foliage). 3.b. Individuals who may have been in the area (for whatever reason) will be monitored for contamination. 3.c. No, or very limited, detectable (ingestible or breathable) particulate contamination as reported by Mound and Los Alamos studies.	1. Minimal 2. Minimal 3. Minimal

CONCLUSION:

Given all the safeguards that are in place, the residual hazard caused by the DU impact is considered to be minimal and acceptable.