



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

**REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931**

February 12, 2002

EA-02-017

Department of the Army
ATTN: Brigadier General Patricia L. Nilo
Commandant
U.S. Army Chemical School
Fort Leonard Wood, Missouri 65473-8926

SUBJECT: NRC INSPECTION REPORT 01-02861-05/01-03

Dear General Nilo:

On January 14, 2002, the NRC completed an inspection at the Pelham Range burial area at Fort McClellan, Alabama. The purpose of the inspection was to determine whether decommissioning activities authorized by the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. At the conclusion of the inspection, the findings were discussed with members of your staff identified in the enclosed report. The enclosed report presents the results of this inspection.

The inspection was an examination of activities conducted under your license as they relate to radiation safety and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel and observations of activities. The inspectors also reviewed the actions you took in response to our Confirmatory Action Letter (CAL) dated December 18, 2001 (CAL No. 2-01-02), and determined that you were implementing the actions as described in the CAL. On January 28, 2002, NRC inspectors obtained soil samples from the burial mound at Pelham Range. You will be advised by separate correspondence of the results of the analysis of this soil.

Based on the results of this inspection, three apparent violations were identified and are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. These apparent violations involved the Army exceeding the possession limit for cobalt 60 listed on Materials License No. 01-02861-05, the failure to secure licensed material from unauthorized access or removal, and the failure to notify NRC of these events as required by 10 CFR 20.2203(a)(3)(ii), and are discussed in the enclosed inspection report. NRC was advised of the unsecured licensed material by the Alabama State Department of Radiological Health in early September 2001. The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective action were discussed with members of your staff following the inspections on December 17, 2001 and January 14, 2002. As a result, it may not be necessary to conduct a predecisional enforcement conference in order to enable the NRC to make an enforcement decision.

In addition, since your facility has not been the subject of escalated enforcement actions within the last 2 years, and based on our understanding of your corrective action, a civil penalty may not be warranted in accordance with Section VI.C.2 of the Enforcement Policy. The final decision will be based on your confirming on the license docket that the corrective actions previously described to the staff have been or are being taken.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either (1) respond to the apparent violations addressed in this inspection report within 30 days of the date of this letter or (2) request a predecisional enforcement conference. If a conference is held, it will be open for public observation. The NRC will also issue a press release to announce the conference. Please contact Orysia Masnyk Bailey at (404) 562-4739 within seven days of the date of this letter to notify the NRC of your intended response.

Should you choose to respond to the apparent violations in writing, your response should be clearly marked as a "Response to Apparent Violations in Inspection Report No. 01-02861-05/01-03" and should include for each apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. In presenting your corrective action, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. The guidance in the enclosed excerpt from NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," may be helpful. Your response should be submitted under oath or affirmation and may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference.

In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, Enclosure 1, and your response (if you choose to provide one) will be made 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/reading-rm/ADAMS.html> (the Public Electronic Reading Room). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Department of the Army

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Should you have any questions concerning this letter or report, please contact us.

Sincerely,

/RA/

Douglas M. Collins, Director
Division of Nuclear Materials Safety

Docket No. 030-17584
License No. 01-02861-05

Enclosures: 1. NRC Inspection Report
No. 01-02861-05/01-03
2. Excerpt from NRC Information
Notice 96-28.

cc w/encl 1:
Rick Button
Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, GA 30365

James T. Williams
Division of Radiation Control
State of Alabama
Department of Public Health
201 Monroe Street, Suite 700
Montgomery, AL 36104

Lisa Holstein
Environmental Office
Bldg. 215, 15th Street
Fort McClellan, AL 36205-5000

PUBLIC DOCUMENT (circle one): YES NO

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| NAME | OMBailey | BParker | AMiller | TRDecker | DCollins | CEvans | |
| DATE | 2/7/02 | 2/7/02 | 2/7/02 | 2/11/02 | | 2/8/02 | |
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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 030-17584

License No.: 01-02861-05

Report No.: 01-02861-05/01-03

Licensee: Department of the Army

Location: Fort McClellan, Alabama

Date: December 13, 2001 and January 14, 2002

Inspectors: Orysia Masnyk Bailey, Health Physicist

Accompanying Personnel: Andy Miller, CHP, Health Physicist
Bryan A. Parker, Health Physicist

Approved by: Thomas R. Decker, Chief
Materials Licensing and Inspection Branch 1
Division of Nuclear Materials Safety

Enclosure 1

EXECUTIVE SUMMARY

DEPARTMENT OF THE ARMY
FORT MCCLELLAN, ALABAMA
NRC INSPECTION REPORT NO. 01-02861-05/01-03

This special, announced inspection was conducted to evaluate the licensee's progress in decommissioning the burial mound located at the Pelham Range at Fort McClellan, Alabama. The inspectors also reviewed the actions the licensee had taken in response to the Confirmatory Action Letter (CAL) dated December 18, 2001 (CAL No. 2-01-02) and found that the required actions were implemented and that the CAL could be closed.

The inspectors determined that, by August 2001, the licensee had accumulated approximately 34 millicuries of cobalt 60 as a result of their decommissioning activities and failed to adequately secure this material until December 14, 2001. This material was shipped for disposal on January 10 and 11, 2002. In addition, the licensee exceeded its possession limit of 8 millicuries and failed to request an amendment to the license until December 21, 2001. This was not reported to the NRC as required by 10 CFR 20.2203 (a)(3)(ii).

Attachments:

List of Persons Contacted
Inspection Procedures Used
Survey Instruments Used

REPORT DETAILS

1. Scope

This special, announced inspection was conducted to determine whether decommissioning activities authorized by the license were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements and the licensee's approved Decommissioning Plan. The inspectors also reviewed the actions the licensee had taken in response to the Confirmatory Action Letter (CAL) dated December 18, 2001 (CAL No. 2-01-02)

2. Observations and Findings

The Army is in the process of decommissioning a radioactive material burial mound at the Pelham Range. They are digging the mound up in "layers" and moving the dirt via conveyor belt under a NaI detector array. The contaminated dirt is segregated and packaged for disposal.

On September 07, 2001, the NRC received an e-mail from a Radiation Physicist from the Alabama State Division of Radiation Control advising of his observations at Fort McClellan the previous day. He had observed that the licensee's contractor, Allied Technology Group (ATG), had found contaminated lead bricks and a "vein" of contaminated soil with obvious "hot spots," up to 150 mR/hr. This soil was being placed directly into an intermodal container for disposal. Subsequent discussions with the State inspector and with the current contractor manager disclosed the following. The licensee's contractor found several sources in the radioactive dirt, some with radiation levels of 3 to 4 R/hr on contact. The sources were bits of metal that were scooped up with the surrounding dirt and placed in plastic zip lock bags. The contractor also found several 5 gallon buckets filled with sand and lead "pigs" as well as numerous contaminated and non-contaminated lead bricks. The NRC inspector contacted the ATG contractor by phone in mid-September and was advised that the contractor planned to build a "cave" from the lead bricks and secure the material within a trailer at the job site until it could be shipped off site. On December 13, 2001, the inspectors observed that this had not been done. Instead, the material was buried at the job site under a mound of dirt approximately four feet in diameter and four feet high. The area was roped off with a yellow and magenta rope and a sign posted that read "Do not disturb - High Radiation Area Beneath Dirt." Access to this area is by a main road that is controlled by the Range Control office at Pelham Range, but access is routinely granted to Army and National Guard personnel, contractors, and hunters. These individuals are unauthorized personnel regarding access to licensed material. In early November, the licensee's contractor filed for bankruptcy and had no workers at the site from approximately November 19 until December 13, 2001. The original contractor manager is no longer with the company and the work log could not be located. The inspectors determined that the licensed material was found in late August 2001.

During the December 13 inspection, the NRC inspectors observed the Alabama State inspector take dose rate readings in the area of the buried sources and the filled intermodal containers using a Ludlum Model 19 Ion chamber, Serial No. 41842 which was calibrated on November 21, 2001. It read 2 mR/hr on contact with the dirt mound. The highest reading on contact with the containers was 1 mR/hr. Eight of these

containers were deemed "suspect" by the current contract site manager in that contaminated dirt was placed directly into them without passing under the detector array. The site manager wanted to determine the contamination levels and to ensure that no lead bricks had been placed into the containers. The dirt will be processed through the NaI detector array and then replaced in the containers for disposal. The contractor clarified that dirt in the area will be excavated to make the job site more accessible or safer, and that this dirt will not be surveyed since it is outside of the original burial mound "footprint." The inspectors agreed that this was appropriate.

On December 14, the contractor dug up the licensed material stored in the mound and secured it within a locked trailer at the job site. The licensee shipped the sources for disposal on January 10 and 11, 2002. Most of the material was shipped to Duratek in Barnwell, South Carolina. Contaminated lead was shipped to NSSI in Texas for processing before disposal.

On December 18, 2001, the NRC issued CAL 2-01-02, requiring the licensee to maintain the licensed material secured from unauthorized removal or access, fully characterize and dispose of the material, and provide additional oversight of the decommissioning activities at Fort McClellan. The licensee responded with a letter dated December 21, 2001, stating that the material was secured, that the material would be disposed of by January 15, 2002, and delineating the oversight measures they would employ. An assessment of the material was provided and the licensee concluded that there was approximately 27 mCi of cobalt 60 found. The Army also requested that their possession limit be increased. During an on-site inspection on January 14, 2002, the inspectors found that the material was disposed of and that the Army had implemented additional oversight measures. The inspectors were advised that the Army's letter contained a transcription error, and that the total activity of the material found was actually 34 mCi. The CAL can be closed.

3. Conclusion

Three apparent violations were identified as a result of this inspection. One apparent violation involved the licensee exceeding its possession limit of 8 millicuries for cobalt 60. The second apparent violation dealt with the licensee's failure to comply with 10 CFR 20.1801 and 1802 which require the licensee to secure licensed material from unauthorized removal or access. The Army failed to do so when they stored the material under a dirt mound in an unrestricted area. The last apparent violation dealt with the Army's failure to comply with 10 CFR 20.2203 (a)(3)(ii) which requires a licensee to submit a written report within 30 days after learning that any applicable limit in its license is exceeded. The licensee submitted a report within 30 days after the inspectors advised them of the potential violation, but not within 30 days of the discovery of the event.

EXIT MEETING SUMMARY

The inspectors discussed the inspection results with the persons indicated in the Attachment on January 14, 2002. The inspectors advised that three apparent violations had been identified, the failure to secure licensed material from unauthorized access or removal, that the licensee's possession limit for cobalt 60 had been exceeded, and that the licensee failed to make the appropriate report. The licensee representatives emphasized that the material had been stored at a remote location, that access had been controlled to the range to some degree, and that digging up the material would take extensive effort. The inspectors advised that these factors would be considered.

ATTACHMENT

LIST OF PERSONS CONTACTED

Department of the Army, Fort McClellan, Alabama:

*Lisa Holstein, Base Relocation and Closure Coordinator (BRAC)
Lee Jaye, Environmental Engineer, BRAC
Ron Levy, Environmental Manager, BRAC
*John May, Radiation Safety Officer (by phone)

Department of the Army, Rock Island, Illinois:

Mike Grey, Health Physicist, Operations Support Command (OSC)
*Mike Styvaert, Health Physicist, OSC

Environmental Protection Agency:

Rick Button, Health Physicist

State of Alabama:

*James T. Williams, Radiation Physicist, Division of Radiation Control

Allied Technology Group:

*Wade Fillingate, Site Manager

*Attended exit interview.

INSPECTION PROCEDURES USED

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|----------|-------------------------------------------------------------|
| IP 83890 | Closeout Inspection and Summary |
| IP 87104 | Decommissioning Inspection Procedure for Materials Licenses |