

May 22, 1998

Commandant
U. S. Army Chemical School
ATTN: AZTM-CM-AHP
Ft. McClellan, AL 36205

SUBJECT: NRC INSPECTION REPORT NO. 01-02861-04/98-02

Dear Commandant:

On May 18, 1998, the NRC completed an inspection regarding Buildings 3182 and 3192 and the surrounding fenced area at Fort McClellan, Alabama. The enclosed report presents the results of that inspection, which were discussed with John May on April 15 and May 18, 1998.

During the inspection inspector observed sampling activity and obtained several soil samples which are being analyzed. You will be advised by separate correspondence of the results of these analyses. Based on those reviews, discussions, and measurements, no violations 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 placed in the NRC Public Document Room.

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

Sincerely,

original signed by Thomas Decker

Thomas R. Decker, Chief
Materials Licensing/Inspection Branch 1
Division of Nuclear Materials Safety

Docket No. 030-14759
License No. 01-02861-04

Enclosure: NRC Inspection Report
No. 01-02861-04/98-02

cc w/encl: (See Page 2)

U. S. Army Chemical School

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cc:w/encl:
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U. S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.: 030-14759

License No.: 01-02861-04

Report No.: 01-02861-04/98-02

Licensee: Department of the Army

Location: Fort McClellan, Alabama

Date: April 15 and May 18, 1998

Inspectors: Orysia Masnyk Bailey, Radiation Specialist

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

Enclosure

EXECUTIVE SUMMARY

Department of the Army
Fort McClellan, Alabama
NRC Inspection Report No. 01-02861-04/98-02

This special, announced inspection was conducted to observe the licensee obtain soil samples from the site of the now demolished Building 3180 to be analyzed for strontium 90 and building block samples from Building 3192 to be analyzed to determine if the block is contaminated with cobalt 60 or cesium 137. The inspector also obtained two confirmatory soil samples. The release criteria used were the following: Policy and Guidance Directive FC 83-23, "Termination of Byproduct, Source and Special Nuclear Material Licenses," Attachment 2, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated August 1987. The conduct of this inspection included discussions with cognizant licensee representatives, review of documents, and direct observations.

Attachments:

List of Persons Contacted
Inspection Procedures Used

REPORT DETAILS

01. Scope

This special, announced inspection was conducted to observe the licensee obtain soil samples from the site of the now demolished Building 3180 and building block samples from Building 3192.

The release criteria used were those delineated in Policy and Guidance Directive (P&GD)FC 83-23, "Termination of Byproduct, Source and Special Nuclear Material Licenses," Attachment 2, "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated August 1987. The limit for strontium-90 (Sr-90) in soil is 5 pCi/g.

02. Observations and Findings

Building 3180 was previously located in this area and has been demolished. USAEHA Industrial Radiation Consultation Report No. 27-43-EU66-93, dated July 27, 1993, documented the disposition of this area. It concluded that, "Data are not available that documents the radiological status of the ground area below and near the demolished Building 3180 and the concrete pad," and recommends further surveys to include core sampling. The report concluded that all of the building, concrete floor, and outside concrete pad area had been removed and disposed of in 1989. There was no substructure to the building. It referenced an Army Memorandum for Record, ATZN-CM-AHP, dated August 3, 1989, which reports that beta and gamma measurements were made during demolition and only background levels were detected. At this time, a Sr-90 source was found and removed from a storage well near the building. No NRC closeout survey or inspection was performed to support closeout of this area.

During the current inspection, several soil samples were obtained by the licensee from the site where Building 3180 stood. The inspector obtained two soil samples which were sent to the Department of Energy's Oak Ridge Institute for Scientific Education for analysis. The analysis results will be communicated by separate correspondence.

The inspector noted, during a previous inspection, that four vertical pipes within the hot cell inside of Building 3192 were filled in with concrete. Although elevated readings were not noted on contact with the surface of the pipe, the licensee was asked to determine why these pipes were filled in and to ensure that no licensed material was contained inside the pipes. A member of the licensee's Radiation Safety staff was present when the concrete was jack hammered from the pipes and they were found to be empty. The inspector verified that the pipes were empty.

The inspector observed the licensee obtain two concrete block samples from Building 3192 to be analyzed to determine if they are contaminated by cobalt 60 or cesium 137 since an acceptable background level could not be determined to be used for comparison.

03. Conclusions

Building 3192 may be released if analysis of the concrete block demonstrates that Co-60 and Cs-137 contamination are not present. The area where Building 3180 stood may be released when soil analysis rules out Sr-90 contamination.

EXIT MEETING SUMMARY

On April 12, 1998, the inspector advised the RSO that any decisions regarding the release of the area in question would have to be made after results of the licensee's and NRC's sample analysis were complete.

On May 15, 1998, the licensee met with representatives with the Army's Industrial Operations Command, the State of Alabama's Radiological Health Department, the Environmental Protection Agency, and Allied Technology Group to scope out remaining remediation work and closeout surveys at Fort McClellan. This was discussed during a phone conversation between the inspector and the RSO on May 18, 1998. ATG will provide a work plan to remediate and/or perform a close out survey of areas where radionuclides were used. This will include the burial mound at Rideout Field. The mound will be excavated and shipped as waste as necessary. The licensee will submit work plans to the NRC prior to initiating any remediation or surveys. The work plan will discuss all previous areas where radionuclides were used where further remediation or close out surveys are required.

ATTACHMENT

LIST OF PERSONS CONTACTED

Department of the Army, Fort McClellan:
Sgt. Aperans, Radiation Protection Specialist
L. Kin
J. May, Radiation Protection Officer

Environmental Protection Agency:
R. Button, Jr.

State of Alabama:
James T. Williams, Radiation Physicist, Division of Radiation Control

INSPECTION PROCEDURES USED

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