

April 18, 2007

Mr. Howard Pulsifer
Vice President, General Counsel
and Secretary
AAR Corporation
1111 Nicholas Boulevard
Elk Grove Village, IL 60007

SUBJECT: NRC INSPECTION REPORT 040-00235/2006-001(DNMS) - THE
FORMER BROOKS AND PERKINS, INC.

Dear Mr. Pulsifer:

On April 18, 2007, the NRC completed inspection activities at the AAR facility at 12633 Inkster Road, Livonia, Michigan. The inspection included onsite visits at the AAR facility on November 22, 2006, and January 23, 2007, to observe remediation activities, and in-office review through April 18, 2007, to review the results of the onsite observations. The purpose of the inspection was to determine whether remediation activities were conducted safely and in accordance with NRC requirements. At the conclusion of the in-office review, the NRC inspector discussed the findings with your representative.

The inspection consisted of an examination of remediation activities as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, and interviews with personnel.

No violations of NRC requirements were identified during the course of this inspection.

In accordance with 10 CFR 2.390 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). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

H. Pulsifer

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We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Jamnes L. Cameron, Chief
Decommissioning Branch

Docket No. 040-00235
License No. STB-00362

Enclosure:
Inspection Report 040-00235/2006-001(DNMS)

cc: D. Minnaar, Chief, Michigan Department
of Environmental Quality

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 040-00235 (Terminated)

License No: STB-00362 (Terminated)

Licensee: The Former Brooks and Perkins Inc.

Facility: AAR Corporation

Location: Livonia, Michigan

Date: November 22, 2006 and January 23, 2007 (Onsite)
April 18, 2007 (in-office review)

Inspector: P. J. Lee, Ph.D., CHP, Health Physicist

Approved By: Jamnes L. Cameron, Chief
Decommissioning Branch

Enclosure

EXECUTIVE SUMMARY

THE FORMER BROOKS AND PERKINS, INC. NRC Inspection Report 040-00235/2006-001(DNMS)

This inspection covered aspects of remediation activities of six grids on the open land to reduce the average concentration of thorium to accepted levels approved by the NRC, and contamination surveys of the temporary storage areas associated with the remediation activities.

Remediation Activities

- The inspector determined that the AAR conducted the remediation in accordance with the Remedial Work Plan and complied with regulatory requirements for shipping radioactive materials.

Contamination Survey

- The inspector determined that no contamination came from the temporary storage of the contaminated soils in the Eastern Parcel area expected to be released for unrestricted use.

Report Details

1.0 Background

AEC License No. D-547 was issued on January 17, 1957, to Brooks & Perkins Corporation and then superseded by license No. STB-0362 on August 10, 1961. This license authorized possession of up to 15,000 pounds of thorium as contained in 40 percent thorium master alloy and thorium-magnesium alloy containing not more than 3 percent thorium. Licensed activities included rolling, melting, casting, forming, cutting, sanding and welding manufactured products containing licensed source material. The license was terminated on May 17, 1971. In 1981, AAR Manufacturing Group, Inc. (AAR), purchased the Brooks and Perkins property and is its current owner and occupant.

In January 2000, AAR performed indoor subsurface soil remediation activities in the New Addition Building floor areas and Old Process Building drain area. All areas greater than 0.05 weight percent (116 pCi/g) were expected to be remediated.

On August 7, 2006, AAR and Partners Environmental proposed removal of six 10 meter by 10 meter grids to a depth of one meter from grids 249, 219, 100, and 73 in the Western Parcel and grids 118 and 210 in the Eastern Parcel. With the remediation of these grids, the property owner determined that the Eastern Parcel would meet the requirements of 10 CFR 20.1402 for unrestricted release, and the Western Parcel will meet the requirements of 10 CFR 20.1403 for restricted release. The NRC approved the property owner's remediation plan on October 27, 2006, and the remediation started during the week of November 13, 2006, and completed in the week of January 22, 2007.

2.0 Remediation Activities

2.1 Inspection Scope

The inspector reviewed the Remedial Work Plan and interviewed individuals responsible for the remediation. The inspector observed the excavation of grid 249. The inspector reviewed the records associated with waste shipments and interviewed the individual responsible for ensuring compliance with NRC and Department of Transportation (DOT) regulations.

2.2 Observations and Findings

The property owner contracted with a land surveyor to identify the location of the grids to be remediated. The inspector verified that the locations of six grids were consistent with AAR's 1999 Site Characterization Report. All the excavations from grids 249, 219, 100, 73, 118, and 210 were backfilled with clean soil from Waterford Township in Michigan.

During the excavation of grid 249, remediation contractor personnel adhered to the site-specific health and safety plan.

The excavated contaminated soils, as well as the legacy drums and boxes containing soil from previous remediation and characterization activities, were shipped by rail to an authorized disposal site. The shipping manifest showed that personnel packaged, labeled, and marked each shipping container according to DOT and 10 CFR Part 71 transportation requirements. The results of radiation and removable contamination levels were within applicable limits. The waste manifest included all required information.

2.3 Conclusions

The inspector determined that AAR conducted the remediation in accordance with the Remedial Work Plan and complied with regulatory requirements for shipping radioactive materials.

3.0 **Contamination Survey (87104)**

3.1 Inspection Scope

The inspector reviewed the final status survey of the previous storage area for the contaminated soil removed from indoor subsurface soil remediation in the New Addition Building floor areas and Old Process Building drain area during January 2000, and from previous site characterizations. The inspector also reviewed the results of contamination surveys of the current storage area for the soil removed from the current remediation and previous storage area.

3.2 Observations and Findings

Prior to being shipped to the disposal site, the contaminated soils were stored in two locations. One location was the previous storage area that had been used since the January 2000 remediation. The other soil storage area was used during the recent remediation of the six grids and for relocation of the contaminated soils from the previous storage area. Both storage areas were in the Eastern Parcel area, which was expected to be released for unrestricted use.

All of the contaminated soils were stored in containers. To ensure that there was no cross contamination to previously clean areas, contractor personnel surveyed the containers for surface contamination prior to being placed in the current storage area. The results of those surveys did not identify any measurable contamination.

Contractor personnel performed the final status survey at the previous storage area after the contaminated soils were moved to the current storage area. They also performed gamma surface scans at the current storage area before relocating and after shipping the contaminated soils for disposal. The results of the final status survey did not identify any residual contamination. The review of the gamma surface scans did not indicate any differences in the radiation levels before placing and after shipping the contaminated soils. The results of the inspector's gamma surface scans at both storage areas did not identify any results that could be distinguished from the background radiation levels in the surrounding area.

3.3 Conclusions

The inspector determined that contractor personnel properly controlled the temporary storage of the contaminated soils in the Eastern Parcel area.

4.0 **Exit Meeting**

The inspector presented the inspection results to the representative of AAR at the conclusion of the onsite inspections on January 23, 2007, and at the conclusion of the in-office review on April 18, 2007. The property owner did not identify any of the documents or processes reviewed by the inspector as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

- * Edwin J. Power, AAR
Glenn Parkhurst, Energy Solutions
- * Indicates individual present during the exit meeting on January 23, 2007.

INSPECTION PROCEDURE USED

IP 87104: Decommissioning Inspection Procedure for Materials Licensees

