

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 999-90003/94049(DRSS)

License No. STB-543 (terminated)
Docket No. 040-06733 (terminated)

Licensee: Pneumo Abex Corporation
3781 East 77th Street
Cleveland, Ohio 44105

Inspection At: Pneumo Abex Corporation
3781 East 77th Street
Cleveland, Ohio 44105

Inspection Conducted: July 20, 1994

Inspector: William Snell
William Snell
Senior Radiation Specialist

7/29/94
Date

Mike Kurth
Mike Kurth
Radiation Specialist

07/29/94
Date

Approved by: G. M. McCann
G. M. McCann, Chief
Fuel Facilities and Decommissioning
Section

07/29/94
Date

Inspection Summary

Inspection on July 20, 1994 (Report No. 999-90003/94049(DRSS))

Areas Inspected: This was a special inspection to perform a confirmatory survey following remediation of contamination previously identified in a June 13, 1994, inspection (NRC Report No. 999-90063/94004(DRSS)). The purpose of the survey was to determine if residual radioactive material was less than NRC's unrestricted use criteria. Also reviewed were the results of confirmatory surveys performed by the licensee.

Results: The inspection did not identify any radiation levels or any removable radioactive contamination above background at the locations surveyed. Based upon the inspection findings, it was concluded that the facilities met the current NRC criteria for release for unrestricted use.

DETAILS

1. Persons Contacted

Gary Egleston, Pneumo Abex Corporation
Dave Kiesling, Fluor Daniel
Mike Jackman, RUST Federal Services

All the above personnel attended the exit meeting conducted on July 20, 1994.

2. Background

On June 13, 1994, the NRC conducted a scoping survey of the facility (Inspection Report No. 999-90063/94004(DRSS)) and confirmed Pneumo Abex's finding that radioactive material was present that exceeded the NRC release limit for unrestricted use. In response, Pneumo Abex contracted to RUST Federal Services for the development and execution of a characterization and remediation of the facility. This was accomplished RUST Federal Services during June and July 1994.

3. Facility Status

The building where the formerly licensed activities took place was approximately 500,000 square feet and comprised an entire block. The Pneumo Abex Corporation had been leasing the building, but the lease expired at the end of July 1994, and the lease was not being renewed. To vacate the building, Pneumo Abex sold the assets of the building in conjunction with the sale of Cleveland Pneumatic Tool Company to B.F. Goodrich, Inc. At the time of the inspection the building was essentially vacant, with only minimal furnishings remaining.

4. Independent Measurements

The NRC inspectors conducted radiological surveys in and around the former operations areas on the first floor, second floor, third floor, basement, loading dock and roof of the building. The areas surveyed included the area where the flash welder had been located, wooden storage bins where spools had been stored, the areas where the thorium-magnesium rings were used, the areas where sizing die identification and test welding were conducted, where rack storage of extrusion was located, where barbering and penetrant dye check was performed, the areas where the king bore/vertical turret lathe, bending machine, press, and band saw had been located, the loading dock, and the roof area surrounding the ventilation exhaust.

Radiation surveys were performed with two Ludlum Model 12 portable survey instruments with Model 44-9 alpha-beta-gamma probes. The instruments, NRC Nos. 047065 and 047067, were both calibrated on February 9, 1994. Prior to the surveys the instruments were checked for accuracy and constancy with a dedicated and traceable ⁹⁰Sr/⁹⁰Y check

source. The instruments responded as expected. The instruments results were also corrected for probe size and counting efficiency. This correction showed that for beta/gamma radiation with background included, approximated 3,000 disintegrations per minute/100 cm² (dpm/100 cm²), (the maximum unrestricted release level), instrument 047065 indicated 192 counts/minute (cpm) and instrument 047067 indicated 187 cpm. Background was measured and determined to be 60 cpm.

Confirmatory surveys were performed and wipes taken on the floors, walls, accessible ventilation ducts, drain openings, and support beams, as applicable, in each of the Affected Areas. Affected Areas were defined as areas that were potentially contaminated (based on previous surveys or operating history), including areas where radioactive materials were stored or used. There were a total of twelve Affected Areas. In addition, random surveys were conducted in Unaffected Areas, which were defined as a 10 meter buffer zone surrounding each Affected Area. Surveys included direct measurements for alpha and beta activity. Wipes were analyzed for gross alpha and gross beta activity.

Surface scans for α and β activity were indistinguishable from background. This survey indicated that residual radioactive material was less than NRC unrestricted use criteria of 1000 dpm (17 Bq)/100 cm² average activity; 3,000 dpm (50 Bq)/100 cm² maximum activity; and 200 dpm (3 Bq)/100 cm² removable activity. These criteria are found in NRC's "Guideline for Decontamination of Facilities and Equipment prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," August 1987. A review was also performed of the results of RUST's characterization survey, remediation, and confirmatory survey. The review indicated the results to be comparable with NRC survey data.

In conclusion, the inspector's independent radiation measurements confirmed that the facility had been adequately remediated and no radioactive material was found that exceeded the NRC guideline values for unrestricted use.

5. Exit Meeting

The NRC inspectors met with the individuals identified in Section 1 of this report and summarized the findings of the inspection. The inspector stated that the independent radiological survey identified no radioactive material was found that exceeded the NRC release criteria. During the course of the inspection and during the exit meeting no documents, inspection findings and/or statements were identified as proprietary in nature.