

APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 30-17881/90-01

License: 17-16653-02

Docket: 30-17881

Licensee: Department of the Army
U.S. Army Engineering
District, New Orleans
Water Quality Laboratory
Foot of Prytania Street
New Orleans, Louisiana 70160

Facility Name: Department of the Army
U.S. Army Engineering
District, New Orleans
Water Quality Laboratory

Inspection At: New Orleans, Louisiana

Inspection Conducted: October 31, 1990

Inspectors: Selvan Rajendran 12/19/90
Selvan Rajendran, Radiation Specialist
Nuclear Materials Licensing Section Date

Gilbert L. Guerra, Jr. 12/19/90
Gilbert L. Guerra, Jr., Radiation Specialist
Nuclear Materials and Safeguards Inspection
Section Date

Approved: William L. Fisher 12/19/90
William L. Fisher, Chief
Nuclear Materials Licensing Section Date

Inspection Summary

Inspection Conducted October 31, 1990 (Report 30-17881/90-01)

Areas Inspected: Routine, unannounced radiation safety inspection of a byproduct material program authorizing the use of gas chromatographs (GCs) for sample analysis. The inspection included the review of facility and instrumentation, radiation surveys, and waste disposal.

Results: This inspection revealed a lack of management attention to the radiation safety program. Five violations were identified in three areas. In the area of waste disposal, one violation was identified regarding the improper disposal of a GC. In the area of equipment and facilities, two violations were identified including failure to post Form NRC-3 and other applicable documents and failure to indicate the presence of radioactive material where GCs are used. In the area of radiation surveys, two violations were identified, including the failure to perform leak tests at 6-month intervals and failure to perform physical inventory every 6 months.

DETAILS

1. Persons Contacted

- **Colonel Richard V. Gorski, District Engineer
- *Steven T. Servay, Chemist
- *Rodney L. Brule, Chief, Safety and Occupational Health

- *Present at the exit meeting on October 31, 1990.
- **Present at the exit meeting by phone on November 8, 1990.

2. Licensee Action on Previous Violations

(Open) Violation of 10 CFR 20.203(e) (30-11422/77-01)*: Failure to post the room to indicate the presence of radioactive material.

(Open) Violation of 10 CFR 19.11 (30-11422/77-01)*: Failure to post copies of Part 19, Part 20, the license, and Form NRC-3.

*See discussion in Program Overview.

3. Program Overview

The licensee previously possessed NRC License 17-16653-01 (Docket 30-11422), covering the GCs which expired on August 31, 1980. Renewal of that license was not requested until October 2, 1980. Therefore, a new license (17-16653-02) was issued on February 25, 1981. The licensee was last inspected on November 9, 1977. The licensee is authorized by a separate license to possess and use a fixed gauge on a dredger. This license is not the subject of this report.

In their material license, the licensee lists two individuals who are authorized to use the GC for sample analysis.

No violations were identified.

4. Equipment and Facilities

The licensee possesses both specifically licensed and generally licensed GCs.

The generally licensed GC, a Varian Associates Model 4600A GC, Electron Capture Detector (ECD) Model 03-908377-00, containing two 8-mCi sources of Ni-63, is not the subject of this inspection.

The specifically licensed GC, a Perkin Elmer Sigma 1 Analyzer containing 15 mCi of Ni-63, is the subject of this inspection.

The GC is used in the water quality laboratory in Room 150 of the licensee's facility. Current copies of Part 19, Part 20, the license, or a notice describing these documents and where they may be examined were not posted. Also, the licensee did not post Form NRC-3, "Notice to Employees." The failure to post the required documents and form is a violation of 10 CFR 19.11. Also, the room was not posted to indicate the presence of radioactive material. The failure to post the room to indicate the presence of radioactive material is a violation of 10 CFR 20.203(e).

Two violations were identified.

5. Radiation Surveys

License Condition 13 requires, in part, that except for sealed sources that are stored and not being used, sealed sources containing licensed material be tested for leakage at intervals not to exceed 6 months, and that a record be maintained of this test.

The inspectors found, by interviewing the licensee, that leak tests had been performed until 1985 but had not been performed since 1985. The failure to perform the leak tests on the GC is a violation of License Condition 13.

License Condition 15 requires the licensee to conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license, and requires that records of inventories be maintained for 2 years from the date of each inventory. The chemist who is in charge of the GC stated that he had never performed any physical inventories. The Chief, Safety and Occupational Health, CELMN-SO stated on November 6, 1990, that the safety office performs an annual inventory of the equipment in the district. He also stated that in 1989 the inventory was not performed because he was on leave at the time the physical inventory was due to have been performed. Therefore, the last annual inventory that was performed was in 1988. Failure of the licensee to conduct 6-month physical inventories was identified as a violation of License Condition 15.

Two violations were identified.

6. Waste Disposal

According to the licensee's procedure for waste disposal, the disposal of sources, if necessary, will be by transfer of the radioactive materials to the suppliers of the sources. But the foils contained in a Perkin-Elmer Model 3920B Gas Chromatograph, Model 009-0282 ECDs Serial Nos. 1001 and 1002 were disposed to Keesler Air Force Base as scrap metal on September 22, 1989. This GC contained approximately 15 mCi of Ni-63.

10 CFR 20.301 requires that no licensee dispose of licensed material except by certain specified procedures. The disposal of the licensed material to scrap metal is a method neither authorized by 10 CFR 20.301 nor approved by NRC. Therefore, it is identified as a violation of 10 CFR 20.301.

One apparent violation was identified.

7. Exit Interview

On October 31, 1990, the inspectors met with the individuals identified in Section 1 and summarized the scope and findings of the inspection as presented in this report. The findings were discussed further with Messrs. Servay and Brule by telephone on November 6, 1990.