



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30333

DEC 10 1992

Report No.: 52-24908-01/92-01

Licensee: Ponce I&M Engineering Lab., Inc.
Ponce, Puerto Rico

License No.: 52-24908-01

Docket No.: 030-29953

Inspection Conducted: October 21 and 23, 1992

Inspector: H. Bermudez
H. Bermudez, Senior Radiation Specialist

12/10/92
Date Signed

Accompanying Personnel: J. Díaz, Radiation Specialist

Approved By: C. Hosey
C. Hosey, Chief
Nuclear Materials Inspection Section
Nuclear Materials Safety and Safeguards Branch
Division of Radiation Safety and Safeguards

1-10/92
Date Signed

SUMMARY

Scope:

This routine, unannounced inspection of activities conducted under NRC License No. 52-24908-01 included a review of the organization and administration of the licensed program, radiation safety training, personnel radiation protection, and transportation of radioactive materials.

Results:

Significant weaknesses were identified in the licensed program. There was inadequate involvement of licensee management in the oversight of the licensed activities. This resulted in several violations in the radiological safety area, some of which were repetitive. In addition, for a period of approximately one month, the licensee conducted licensed activities without a license, in that it had expired.

Within the areas inspected, the following apparent violations were identified:

- Conduct of licensed activities without a valid license (Section 3).
- Failure to test sealed sources for leakage and/or contamination at intervals not to exceed six months, a repeat finding from an NRC inspection conducted on November 7, 1988 (Section 3).
- Failure to conduct physical inventories of all sealed sources possessed at the required six-month frequency, a repeat finding from an NRC inspection conducted on November 7, 1988 (Section 3).

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- Creation of radiation levels in unrestricted areas in excess of regulatory limits (Section 4).
- Failure to post Form NRC-3, "Notice to Employees," a repeat finding from an NRC inspection conducted on November 7, 1988 (Section 3).
- Transporting a package of licensed materials with an unmarked and unlabeled overpack (Section 5).
- Improper placement of shipping papers during transportation (Section 5).

The following violations are discussed in this report but will not be subject to enforcement action because the licensee's actions meet the criteria for enforcement discretion specified in Section VII.B of the NRC Enforcement Policy, 10 CFR 2, Appendix C:

- Failure to include the letters "RQ" next to the shipping name on shipping papers (Section 5).
- Failure to maintain training records for two authorized users (Section 3).

REPORT DETAILS

1. Persons Contacted

*J. Irizarry, President
*J. López, Senior Laboratory Supervisor
R. Santiago, Laboratory Supervisor

*Indicates presence at exit meeting

2. Program Scope and Licensee Organization

License No. 52-24908-01 was originally issued on July 16, 1987, and was most recently amended on May 22, 1989. The license expired on August 31, 1992. The license allowed possession and use of cesium-137 and americium-241 sealed sources contained in moisture/density gauges to measure properties of materials. At the time of the inspection, the licensee possessed three gauges, at least two of which were being used on a daily basis. There were five authorized users, including the laboratory supervisor, which reported to the senior laboratory supervisor. The senior laboratory supervisor reported to the company president. Licensee representatives indicated that the use of the gauges was the company's main source of income.

3. Licensed Materials Program (87100)

10 CFR 30.3 requires that except for persons exempt as provided in this part and Part 150 of this chapter, no person manufacture, produce, transfer, receive, acquire, own, possess, or use byproduct material except as authorized in a specific or general license issued pursuant to the regulations in this chapter. 10 CFR 30.36(a) states, in part, that each specific license expires at the end of the day, in the month and year stated in the license. Condition 4 of License No. 52-24908-01 specifies the expiration date of the license to be August 31, 1992.

On September 11, 1992, the NRC issued the licensee a Notice of Violation (NOV) for possession of material without a NRC license. The license had expired and a review of records indicated that the licensee failed to request renewal of its license before the license's expiration. The letter that transmitted the NOV instructed the licensee to place any radioactive material on hand in secure storage until such time as the licensee acquired a valid license. The letter further stated that no other use of material on hand or purchase of additional byproduct material was authorized. On September 17, 1992, the licensee's president replied to the NOV indicating that, due to recent personnel changes, he was unaware that the license had expired. In addition to the response, the licensee submitted a request for a new license. Based on discussions with licensee representatives during the October 21, 1992 inspection, the inspector determined that the licensee continued to use the materials on a daily basis after the license expired. The licensee's president acknowledged understanding the instructions contained in the September 11, 1992, letter and NOV, but indicated that

the use of the gauges was crucial for the company's operation. The failure to conduct NRC-regulated operations with a valid NRC license was identified as an apparent violation of 10 CFR 30.3.

Condition 12 of License No. 52-24908-01 requires that the sources specified in items 7.A, 7.B, and 7.C be tested for leakage and/or contamination at intervals not to exceed six months. Through discussions with licensee representatives and review of records, the inspector determined that the sealed sources in the licensee's MC-1 gauge serial no. M18058240 were not tested for leakage and/or contamination during the periods May 9, 1989 through February 5, 1990, and August 15, 1990 through May 27, 1991, the sealed sources in the licensee's MC-1 gauge serial no. M17077812 were not tested during the periods October 25, 1989 through May 26, 1990, and May 26, 1990 through February 1, 1991, and the sealed sources in the licensee's MC-1DR gauge serial no. MD0019317 were not tested during the period October 31, 1990 through August 6, 1991, all intervals in excess of six months. The licensee was previously cited for exceeding the required six-month leak test interval during an NRC inspection conducted on November 7, 1988. The failure to test the sealed sources for leakage and/or contamination at intervals not to exceed six months was identified as an apparent repeat violation of License Condition No. 12.

Condition 14 of License No. 52-24908-01 requires that the licensee conduct a physical inventory every six months to account for all sources and/or devices received and possessed under the license. Licensee representatives indicated that the leak tests were the licensee's means to comply with the inventory requirement and that no other inventories took place during the periods specified above. The licensee was previously cited for exceeding the required inventory interval during an NRC inspection conducted on November 7, 1988. The failure to inventory all sealed sources possessed at the required six-month frequency was identified as an apparent repeat violation of License Condition No. 14.

10 CFR 19.11(c) requires that a licensee post Form NRC-3, "Notice to Employees." While touring the licensee's facility, the inspector did not see the required form posted and inquired whether it was posted. Licensee representatives indicated that the form was removed several months prior to the inspection when the facility was being painted, and they forgot to replace it. The inspector gave licensee representatives a new copy of the form and licensee representatives indicated that the form would be posted immediately after the inspection. The licensee was previously cited for failing to post Form NRC-3 during an NRC inspection conducted on November 7, 1988. The failure to post form NRC-3 was identified as an apparent repeat violation of 10 CFR 19.11(c).

Condition 11 of License No. 52-24908-01 requires, in part, that the licensee maintain records of the training of individual users. While reviewing qualification records of authorized users, the inspector determined that the licensee did not maintain records of the training of two of its authorized users. Licensee representatives assured the inspector that the two individuals in question had received the required

training and that a file would be maintained showing the training certificates of all authorized users. This apparent violation of License Condition No. 11 is not subject to enforcement action because the licensee's actions meet the criteria for enforcement discretion specified in Section VII.B of the NRC Enforcement Policy, 10 CFR 2, Appendix C.

4. Radiation Protection (83822)

10 CFR 20.105(b) requires that, except as authorized by the Commission in 10 CFR 20.105(a), no licensee allow the creation of radiation levels in unrestricted areas so that an individual who was continuously present in the area could receive a dose in excess of 2 millirem in any one hour or 100 millirem in any seven consecutive days. As defined, in part, in 10 CFR 20.3(a)(17), an unrestricted area is any area access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation. While performing radiation level surveys around the licensee's gauge storage cabinet with a Xetex Model 305 B radiation survey instrument, calibrated on August 20, 1992, the inspector measured a radiation field of 1.2 millirem per hour (mR/hr) outside the door to the storage cabinet. The inspector determined that the radiation field was caused by placing a gauge package in storage with the source side of the package next to the inner side of the door. The storage cabinet was inside a frequented equipment storage area. There were laboratory instruments on top of the cabinet, and licensee personnel indicated that they used the instruments on occasion while standing in front of the door to the storage cabinet where the 1.2 mR/hr radiation field was measured. The creation of radiation levels in an unrestricted area such that, if an individual were continuously present in the area, he could receive a dose in excess of 100 millirem in any seven consecutive days was identified as an apparent violation of 10 CFR 20.105(b).

5. Transportation of Radioactive Materials (86740)

10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the confines of its plant or other place of use, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 170 through 189.

49 CFR 173.25 requires, in part, for packages containing hazardous materials and offered for transportation in an overpack, that: 1) the overpack be marked with the proper shipping name and identification number, and labeled as required by 49 CFR Parts 171-177 for each hazardous material contained therein unless markings and labels representative of each hazardous material in the overpack are visible; and 2) the overpack be marked with a statement indicating that the inside (inner) packages comply with prescribed specifications when specification packagings are required, unless specification markings on the inside packages are visible. Pursuant to 49 CFR 172.101,

radioactive material is classified as hazardous material. Licensee representatives indicated that they routinely transported a package of licensed materials with a black protective cover (an overpack), that the overpack was not marked or labeled, and that the markings and labels on the package could not be seen when the package was covered. The failure to mark and label the overpack used in the transportation of licensed materials as specified above was identified as an apparent violation of 10 CFR 71.5(a).

49 CFR 172.200(a) requires, with exceptions not applicable here, that each person who offers a hazardous material for transportation describe the hazardous material on the shipping paper in the manner required by subpart C of 49 CFR Part 172. 49 CFR 177.217(e) requires, in part, that the driver of a motor vehicle containing hazardous material ensure that the shipping paper is readily available to, and recognizable by, authorities in the event of accident or inspection. Specifically, (i) when the driver is at the vehicle's controls, the shipping paper shall be: (A) within his immediate reach while he is restrained by the lap belt; and (B) either readily visible to a person entering the driver's compartment or in a holder which is mounted to the inside of the door on the driver's side of the vehicle; (ii) when the driver is not at the vehicle's controls, the shipping paper shall be: (A) in a holder which is mounted to the side of the door on the driver's side of the vehicle; or (B) on the driver's seat in the vehicle. Licensee representatives indicated that they carried the shipping paper on the vehicle sun visor during transport, and that the shipping paper was not visible to a person entering the driver's compartment. The failure to carry shipping papers during transport as specified above was identified as another apparent violation of 10 CFR 71.5(a).

49 CFR 172.203(c) requires that the letters "RQ" be entered on the shipping paper either before or after the basic description required for each hazardous substance. While reviewing the licensee's shipping paper, the inspector pointed out that the shipping paper did not include the letters "RQ" next to the proper shipping name of the licensed materials. Licensee representatives indicated that they were not aware of the requirement and that they would modify the shipping paper accordingly immediately after the inspection. This apparent violation of 10 CFR 71.5(a) is not subject to enforcement action because the licensee's actions meet the criteria for enforcement discretion specified in Section VII.B of the NRC Enforcement Policy, 10 CFR 2, Appendix C.

6. Exit Interview (30703)

The inspection scope and findings were summarized in an exit interview with those individuals identified in Section 1 above. The inspector reviewed the program areas inspected and discussed in detail the inspection findings. The NRC Enforcement Policy was reviewed with licensee representatives. Proprietary information is not contained in this report. Licensee representatives acknowledged the NRC's concerns and provided no dissenting comments relative to the apparent violations

discussed in this report. Licensee management indicated that they would stop the use of licensed materials, would use alternate non-nuclear means of performing moisture/density analyses, and would request the expediting of a new NRC license.

The inspector returned to the licensee's facility on October 23, 1992, and verified that the licensee had obtained a valid NRC license.