

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Report No. 030-31072/98-001
Docket No. 030-31072
License No. 37-28367-01
Licensee: Professional Quality Testing Co.
Address: P. O. Box 327, New Kensington, Pennsylvania 15068
Other Locations Inspected: Donoghue Road, Latrobe, Pennsylvania
Inspection Dates: March 24, 1997 and May 27, 1998

Inspectors:

Steven Courtemanche
Steven Courtemanche
Health Physicist

6/18/98
date

Richard M. Ladun
Richard Ladun
Health Physicist

6/19/98
date

Approved By:

John R. McGrath
John R. McGrath, Acting Chief
Nuclear Materials Safety Branch 3
Division of Nuclear Materials Safety

6/22/98
date

RETURN ORIGINAL TO
REGION I

EXECUTIVE SUMMARY

Professional Quality Testing Co.
NRC Inspection Report No. 030-31072/98-001

An unannounced safety inspection of Professional Quality Testing Co. (PQT) was performed on March 24, 1998. The inspection was limited to the storage of records and licensed material at the Latrobe, PA facility since the Radiation Safety Officer was out of state. Three apparent violations were identified: (1) 10 CFR 20.1802/License Condition (LC) No. 19 Failure to secure licensed material when stored in a trailer as specified in Item 10.4, Section 6.0 of the September 7, 1994 letter, (2) 10 CFR 34.27/ LC No. 19 Failure to maintain current utilization logs at the address specified in the license which was 409 Saxonburg Boulevard, Saxonburg, PA per Item 1 of the September 7, 1994 letter, and (3) LC Nos. 10 and 19 Failure to store licensed material at the licensee's facilities at 409 Saxonburg Boulevard, Saxonburg, PA and always storing the licensed material in a trailer. On May 27, 1998, an announced inspection of PQT was performed. An additional example of not securing licensed material when stored in a trailer as specified in Item 10.4, Section 6.0 of the September 7, 1994 letter was identified.

REPORT DETAILS

I. Organization and Scope of the Program

a. Inspection Scope

The inspector interviewed personnel and reviewed records to determine the organization and scope of the program.

b. Observations and Findings

The organization consists of the president of the company and one other employee. Both individuals are certified as radiographers. The president of the company is listed on the license as the Radiation Safety Officer (RSO). Licensed material consists of one radiographic exposure device with a sealed source of iridium 192 not to exceed 100 curies (possession may exceed this limit by 20% per License Condition No. 14). The licensee is authorized to perform industrial radiography at temporary job sites within NRC jurisdiction. The radiography equipment was used 82 times between June 1997 and May 1998.

c. Conclusions

No safety concerns were identified.

II. Management Oversight of the Program

a. Inspection Scope

The inspector interviewed personnel and reviewed the audit records.

b. Observations and Findings

An interview of the RSO by the inspector indicated that he was performing the duties required by 10 CFR 34.42(c). The inspector reviewed the radiographer audit records for the period of January 1998 through May 1998. During the above time period, the RSO worked as a radiographer without assistance and performed self-audits. The licensee is permitted to perform self-audits in three of four quarters during the calendar year per LC No. 19 as outlined in its November 21, 1994 letter. The licensee indicated to the inspector that he had performed the annual review of the radiation safety program content and implementation required by 10 CFR 20.1101(c) in 1997 and that current copies of the Operating and Emergency Manual are kept at job sites.

c. Conclusions

No safety concerns were identified.

III. Facilities and Equipment

a. Inspection Scope

The inspector reviewed the description of the facilities in the September 7, 1994 letter, and the equipment on-hand.

b. Observations and Findings

The license requires that licensed material be stored at 409 Saxonburg Boulevard, Saxonburg, PA or at temporary job sites in a trailer. Since some time prior to December 5, 1995, licensed material has not been stored at 409 Saxonburg Boulevard, Saxonburg, PA and has been stored in a trailer since about that time at Donaghue Road, Latrobe, PA. The licensee does not have any permanent radiographic installations.

The inspector determined that the licensee possesses two radiation detection instruments which were operable at the time of the inspection and were calibrated at the required frequency. The licensee possesses one Tech/Ops Model No. 660B radiographic exposure device (Serial No. [SN] B1146) which contained a 116 curie (as of May 18, 1998) iridium 192 sealed source (Model No. A-429, SN C6262). The inspector observed that associated equipment appears to comply with 10 CFR 34.20. Radiography equipment was inspected and maintained in accordance with 10 CFR 34.31.

c. Conclusions

Utilization of Donaghue Road, Latrobe, PA as a permanent storage location is an apparent violation of Conditions 10 and 19 of License No. 37-28367-01.

IV. Material Receipt, Use, Transfer, and Control

a. Inspection Scope

The inspector reviewed records pertaining to the receipt, use, transfer and control of licensed material. The inspector also interviewed the RSO concerning the receipt of licensed material and the use of licensed material at temporary job sites.

b. Observations and Findings

The inspector reviewed the licensee's shipping papers, the receipt/transfer papers, and inventory records. The inspector determined that the licensee received licensed material from the manufacturer in the form and quantity specified in the license and that transfers back to the manufacturer were as Type A quantities. Packages are received by the RSO during normal working hours and surveys were documented on the shipping papers. Physical inventories were performed at the required interval.

The utilization logs were maintained at the facilities in Latrobe, PA rather than the address in the license (i.e., 409 Saxonburg Boulevard, Saxonburg, PA). A review of the utilization logs by the inspector indicated that the licensee has been performing radiography with licensed material as specified in the license. The logs contained the required information and licensed activities were conducted under only NRC jurisdiction for the period of June 1997 through May 1998. The RSO was interviewed and appeared to have a good working knowledge of how to perform radiography as well as knowledge of his operating and emergency procedures as submitted to the NRC in a September 7, 1994 letter.

Licensed material has never been stored within a facility since December of 1995 as determined by prior inspections and interview of the RSO. The licensee made the following commitments if licensed material were to be stored in a trailer: (1) licensed material in a radiography device must be stored in a locked, lead-lined container bolted to the floor of the trailer, (2) the door to the trailer must be locked, (3) the receiver to the trailer must be locked, and (4) the axel of the trailer must be chained to an anchor or other permanently installed object to prevent movement. On March 24, 1998, the inspector observed that the trailer's receiver and axel were not secured against movement and no licensee personnel were present (i.e., The RSO was out of state and the other employee was laid off in December of 1997 and not present.). On May 27, 1998, the inspector observed that the trailer's receiver was locked and a chain was placed through the hub of the wheel about the axel but the chain was not secured to an anchor or other permanently installed object. The trailer appeared to be immobile to the inspector. Key control for the trailer is maintained by the RSO. All other security measures to ensure that unauthorized access to licensed material would not occur were in place.

No temporary job sites were available at the time of the inspection.

c. Conclusions

Failure to maintain current copies of the utilization logs at the address specified in the license is an apparent violation of LC Nos. 10 and 19 of License No. 37-28367-01.

Failure to store licensed material in a trailer, the axel of which is not being chained and secured to an anchor or other permanently installed object and the receiver of the trailer not being locked in accordance with the procedures described in the September 4, 1994 letter is an apparent violation of 10 CFR 20.1802 and Condition 19 of License No. 37-28367-01.

V. Training of Workers

a. Inspection Scope

The inspector reviewed the licensee's training records.

b. Observations and Findings

The inspector determined that the RSO has the training specified in the license and that the radiographers have been trained and certified under ASNT. The licensee was reminded of the additional training requirements which will come into effect with the implementation of the new Part 34 regulations over the next year. The inspector's interview of the RSO determined that the RSO had a sufficient knowledge of his licensed program with regard to the operating and emergency procedures and Part 20 worker requirements.

c. Conclusions

No safety concerns were identified.

VI. Radiation Surveys

a. Inspection Scope

The inspector reviewed the records concerning radiation surveys.

b. Observations and Findings

The records of surveys reviewed by the inspector indicated that only calibrated radiation detection instruments were used by the licensee. An interview of the RSO by the inspector determined that the RSO performed surveys of the periphery of radiography job sites each time the source was retracted into the radiography device, the radiography device was returned to storage, and source exchanges were made. A review of the leak tests records indicated that radiography sources were leak tested at intervals not exceeding six months in a manner consistent with the manufacturer's instructions. The licensee has not performed a test for removable depleted uranium contamination on the radiography device. The licensee was reminded that a test for depleted uranium would have to be performed prior to August 26, 1998.

c. Conclusions

No safety concerns were identified.

VII. Radiation Protection

a. Inspection Scope

The inspector reviewed the dosimeter records.

b. Observations and Findings

The inspector determined by examining the radiation exposure records that the licensee receives its personnel dosimetry from Landauer as film badges on a monthly basis. The film badges are returned to the NVLAP-approved processor in a timely manner and the

recorded exposures were within regulatory limits. The RSO reviews the records on a monthly basis and no planned special exposures were made during the inspection period.

An interview of the RSO and review of the utilization logs determined that the licensee uses pocket self-reading dosimeters (PDs) manufactured by Dosimeter Corp. and that the PDs were calibrated annually. The RSO informed the inspector that the PDs were charged at the beginning of each shift and the dose recorded at the end of the shift. During radiography operations, the RSO stated that the PDs were checked to ensure that the licensee had not encountered high radiation levels or accidentally caused the PDs to go off scale. The PDs have a range of 0 - 200 milliroentgen.

The licensee possesses alarming rate meters manufactured by Amersham and NDS which have a range from 0 - 500 millirem per hour. The alarm rate meter calibration records indicated that the instruments were calibrated annually over the required range.

c. Conclusions

No safety concerns were identified.

VIII. Posting and Labeling

a. Inspection Scope

Observations made by the inspector concerning posting and labeling.

b. Observations and Findings

The inspector observed that the licensee had posted the documents required by 10 CFR 19.11 and 21.6 in the facilities at Donaghue Road, Latrobe, PA and in the trailer where licensed material was stored. The inspector examined the radiography exposure device, the overpack used to transport the radiography exposure device and the trailer. The radiography exposure device was marked and labeled in accordance with 49 CFR 172.300 - 450. The overpack was marked and labeled as required by 49 CFR 172.24. The trailer was posted as required by 10 CFR 20.1902. The RSO stated that the postings for radiation areas and high radiation areas at temporary job sites were posted as required by 10 CFR 20.1902.

c. Conclusions

No safety concerns were identified.

IX. Transportation

a. Inspection Scope

The inspector interviewed personnel and reviewed records concerning the transportation of licensed material on the public highways.

b. Observations and Findings

The inspector reviewed the utilization logs and the shipping papers and determined that the licensee transports radiography exposure devices containing sealed sources of iridium 192 as Type B quantities. The review also determined that the licensee delivers for transport to a common carrier used sealed sources of iridium 192 for shipment to the manufacturer as Type A quantities. The shipping papers were completed with the required information and the RSO stated that the shipping papers were carried in the cab of the vehicle within his reach. The inspector examined the radiography exposure device and determined that it was unimpaired and in good condition for transporting licensed material. The inspector confirmed that placarding of the vehicle would not be required by making confirmatory radiation level measurements. The RSO informed the inspector that the radiography exposure device is always transported in the overpack which was bolted to the floor of the trailer thus ensuring that the radiography camera does not shift during conditions normally incident to transportation.

The inspector did not inspect the licensee's hazardous materials training program.

The licensee's procedures for ensuring that the Type B packaging meets the requirements of the Certificate of Compliance were examined by the inspector. The inspector determined that the appropriate procedures were being followed.

c. Conclusions

No safety concerns were identified.

X. Exit Meeting

The inspector informed the licensee that the Commission had no further questions concerning his corrective and preventive actions taken with regard to Items C. and D. of the Notice of Violation enclosed with the NRC's letter of March 11, 1997. The inspector also informed the licensee of the inspection findings as detailed in this report for the inspection conducted on March 24 and May 27, 1998 on May 27, 1998.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

John C. Chabal, President
R. Chabal