APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 30-12319/91-02 License: 35-17178-01

Docket: 30-12319

Licensee: Tulsa Gamma Ray, Inc.
1127 South Lewis Avenue
Tulsa, Oklahoma

Inspection At: Smithco, Inc.
Tulsa, Oklahoma

Inspector: Charles L. Cain 4/3/91
L. L. Kasner, Senior Radiation Specialist Date
Nuclear Materials and Safeguards Inspection
Section

Approved: Charles L. Cain 4/3/91
Charles L. Cain, Chief, Nuclear Materials and Date
Safeguards Inspection Section

Inspection Summary

Inspection Conducted March 8, 1991 (Report 30-12319/91-02)

Areas Inspected: This was a routine, unannounced radiation safety inspection of byproduct material use in radiographic operations conducted at a temporary jobsite. The inspection included a review of the facility; area restriction and posting; equipment and instrumentation; and the licensee's compliance with the transportation requirements associated with radioactive material. During the inspection, radiographic operations were observed.

Results: Within the areas inspected, no violations were identified. The inspector observed that the area used for conducting radiographic operations at this facility was adequately restricted from unintended entrance into a radiation area, was properly posted, and that the licensee's representative was knowledgeable of NRC requirements. Interviews of the contractor's personnel revealed that the licensee had provided service at this site on many occasions and had consistently demonstrated good safety practices. The radiographer normally assigned to work at this facility had informed the contractor's staff of the necessary precautions to be observed while radiographic operations were underway.

DETAILS

1. Persons Contacted

Jimmy Robbins, Radiographer
David Dacus, Plant Manager, Smithco, Inc.
Andy Goodell, Quality Assurance, Smithco, Inc.
Corey Lansdale, Smithco, Inc.
*Peter J. Moss, Radiation Safety Officer (RSO)

*Denotes those contacted for telephonic exit interview.

2. Temporary Jobsite Facility

The inspection included observation of radiographic operations at Smithco, Inc., located at 6211 South 39th West, Tulsa, Oklahoma. This company manufactures air exchange heating condensers, and had contracted the services of Tulsa Gamma Ray (TGR) on many occasions.

During interviews conducted with Smithco employees, the inspector was informed that occasionally TGR had stored radiographic exposure devices at the Smithco facility, within a small storage shed adjacent to the fabrication building. Although the inspector observed that the indicated storage area would have provided adequate security, she noted that this address was not specified in the license and later questioned the TGR representative regarding this practice. According to the radiographer, this practice had been discontinued at some time in the past, and radiographic devices had been transported to and from the licensee's facility when work was scheduled at Smithco in accordance with the provisions for temporary jobsite activities described in the license.

Radiographic operations were conducted within a cubicle constructed of concrete block, adjacent to the fabrication building. Both the Smithco and TGR personnel noted that all radiography was conducted within this area to avoid restricting other areas of the plant while radiography was in progress. The inspector noted that both the type of work and the location of the radiography "vault" provided sufficient shielding and distance from those areas of the plant normally occupied by Smithco employees.

The plant manager acknowledged that he had observed TGR personnel conducting radiation surveys to verify that radiation levels within the building were below restricted limits and that on rare occasions, he had been informed by TGR personnel of the need to ensure that personnel were not assigned to work in the area immediately adjacent to the vault.

The inspector observed that the entrance to the vault was restricted by means of a rope during radiographic operations, and that the area was properly posted as a "Radiation Area" while the exposure device was in

use. The licensee's representative maintained surveillance of the area for the duration of the activities observed.

The licensee had maintained all documents required at a temporary jobsite, with copies located both in the storage shed and in the company vehicle.

No violations were observed.

3. Equipment, Instrumentation, and Operations

The exposure device in use during this inspection was a Amersham/Tech Ops Model 683 (Serial No. 144), containing a 49 curie iridium-192 sealed source. The device was properly labeled, and records available at the jobsite revealed that the radiographic equipment and sealed source had been inspected and leak tested as required.

The licensee had maintained spare survey instruments at this jobsite, in addition to those normally carried by radiographers assigned to work at the facility. At the time of the inspection, three Victoreen Model 492 survey instruments (Serial Nos. 2094, 1537, and 1183) were available, and each had last been calibrated on December 30, 1990. The radiographer was observed wearing the required personal radiation monitors including a whole body film badge, a pocket dosimeter, and an alarming ratemeter. The pocket dosimeter and alarming ratemeter had last been response checked and calibrated in December 1990.

During this inspection, the radiographer was observed conducting several radiographic exposures. The inspector noted that surveys of the exposure device and source guide tube were completed after each exposure, and that the exposure device was locked at the completion of the specific set of exposures observed. Records of the surveys and inspections associated with this job, as well as others completed earlier that week, were complete in content and had been annotated with descriptions of the restricted area established for specific jobsites.

No violations were observed.

4. Transportation

As previously noted, the licensee's representative had transported licensed material to the jobsite on the day of the inspection. Shipping documents were noted to be complete in content, and confirmatory radiation measurements revealed that the package had been properly categorized and labeled. The vehicle was placarded "RADIOACTIVE" as required, since the package was bearing a "RADIOACTIVE YELLOW III" label.

In accordance with the Amersham/Tech Ops 683 Certificate of Compliance (NRC Certificate No. 9053), the exposure device had been transported within the required overpack, which was adequately braced within the licensee's vehicle. The radiographer noted that in accordance with the licensee's corrective actions taken in response to previous NRC inspection

findings, that the use of overpacks and similar bracing techniques had been implemented for each company vehicle.

No violations were identified.

5. Exit Briefing

The inspector briefly discussed the inspection findings with the licensee's representative at the conclusion of the inspection. The findings, as presented in this report, were later discussed with the radiation safety officer during a telephonic exit briefing on March 22, 1991.