

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 30-28741/89-02 License: 03-23185-01

Docket: 30-28741

Licensee: Tumbleweed X-Ray Company  
P.O. Box 1210  
Greenwood, Arkansas 72936

Inspection At: Greenwood, Arkansas

Inspection Conducted: September 20-21, 1989

Inspector: CL Cain for 10/24/89  
D. B. Spitzberg, Ph.D., Senior Radiation Specialist Date

Accompanied By: R. Kirspe1, Office of Investigations  
L. D. Chapman, Office of Investigations  
J. Oiel, Arkansas Department of Health

Approved: CL Cain 10/24/89  
C. L. Cain, Chief, Nuclear Materials Inspection Section Date

Inspection Summary

Inspection Conducted September 20-21, 1989 (Report 30-28741/89-02)

Areas Inspected: Routine, unannounced inspection of activities related to the use of byproduct material in industrial radiography. The inspection consisted of a partial review of records maintained by the licensee to demonstrate compliance with the safety requirements of the license and 10 CFR Part 34.

Findings: Within the areas inspected, no violations were identified.

DETAILS1. Persons Contacted

Otho G. Jones, Owner, Radiation Safety Officer  
Jeanne A. Jones, Radiation Safety Manager  
P. K. Holmes, Esq., Counsel to the Licensee

2. Licensee's Action on Previous Violations

(Closed) Violation (30-28741/8901-01): Failure to establish a quality assurance program for, and register with the NRC as a user of packages used to transport Type B quantities of licensed material. The inspector reviewed acknowledgement letters from the NRC dated June 27 and July 18, 1989, confirming that the licensee's package quality assurance program had been approved, and that the licensee was registered as a user of the Type B packages in use. This item is closed.

(Closed) Violation (30-28741/8901-02): Failure to perform inspections of certain radiographers every 3 months as required by 10 CFR 34.11(d). The inspector discussed the licensee's 3-month inspection program with the radiation safety officer and radiation safety manager who stated that the inspections had been conducted every 3 months as required and as documented on the radiographer performance review forms. A representative sample of the inspection records were reviewed which showed the inspections had been performed as required. This item is closed.

3. Organization, Management, and Training

The inspector discussed the licensee's organization and management with the licensee representatives and determined that it was as described in the license application. At the time of the inspection, the licensee employed 13 radiography personnel, a secretary, and a dispatching clerk. Licensed activities had been conducted in the State of Arkansas under the Arkansas state license and in Oklahoma and Kansas under the NRC license. The Kansas work had been performed under reciprocity with the state. Nine radiography vehicles were operated by the licensee and were dispatched out of the Arkansas home office or the Weatherford, Oklahoma, operations base. Utilization logs and field records were sent by each radiography crew back to the Arkansas office at the end of each week for management review and maintenance.

The licensee's management described the program for training and qualification of radiography personnel and the implementation of the program pursuant to the license requirements. A review of selected personnel files showed that required elements of the training program, including written qualification tests, had been satisfactorily completed in accordance with license requirements and 10 CFR 34.31 for those radiographers and assistant radiographers reviewed. According to the licensee's representatives, radiographer trainees who have been hired

without previous experience have been given classroom training which included open book radiation safety examinations taken with the assistance of radiation safety management for teaching purposes. They have then been assigned to work with radiographers under their direct supervision as an assistant radiographer trainee. The on-the-job training is followed at least 30 days later with the assistant radiographer's closed book examination which is maintained on file in accordance with 10 CFR 34.31(c). The licensee maintained an extensive computer based file on radiography personnel who had either worked for, or applied for work for the licensee going back many years. This data base included useful information on individuals' experience and background which could affect their competency as radiography personnel.

No violations were identified.

4. Internal Audits and Inspections

The inspector reviewed a representative sample of records of performance inspections of radiography personnel and discussed with licensee representatives the conduct of these inspections. For those personnel reviewed, the records indicated that they had been inspected every 90 days as required by the license and 10 CFR 34.11(d). Most of the performance review forms examined were completed and signed by the radiation safety manager, although this individual and the Radiation Safety Officer (RSO) stated that they perform the inspections. The RSO also stated that the records of the performance reviews reflected only that the reviews had been conducted during each 90-day period, but had not necessarily been conducted on the date the record was made. According to the licensee's management, their reviews in the field have been announced, unannounced, or covert and may have been conducted on different days or in a cumulative fashion over the 90-day period.

No violations were identified.

5. Utilization Records

The inspector reviewed a representative sample of source utilization logs completed by the radiographers on forms titled "Radiation Reports." These records were cross referenced with employee time sheets and customer billing records for consistency. Physical survey information recorded on the reports reflected a calculated distance to the controlled area boundaries for each source as provided for in Section VI of the Operating and Emergency Procedures. In addition to the utilization records of source usage required by 10 CFR 34.27, the licensee had made up radiation report records for periods when the sources were stored and not being used.

No violations were identified.

6. Use of Pocket Dosimeters

The radiation reports included entries by the radiography personnel of their pocket dosimeter number and the daily reading. The inspector cross referenced a representative number of these records with the dosimeter assignment log and determined that the records were consistent and met the requirements of 10 CFR 34.33(b). A record had been maintained by the licensee showing that pocket dosimeters had been response checked annually as required by 10 CFR 34.33(c). According to the licensee's representative, the response checks had been performed by a vendor but that vendor records of the checks had either not been obtained, or could not be located. The licensee had recently purchased equipment to perform pocket dosimeter response checks internally.

No violations were identified.

7. Exit Meeting

On October 24, 1989, a telephonic exit meeting was held between Otho Jones of Tumbleweed X-Ray and C. L. Cain, Chief, Nuclear Materials Inspection Section, to discuss the findings of the inspection.