

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 99990003/85001(DRSS)

Docket No. 99990003

License No. Texas 7-3720

Priority: I

Category: C(1)

Licensee: Longview Inspection, Inc.  
35 FRJ Drive  
Longview, Texas 75602

Facility Name: Shell Oil Refinery  
Longview Inspection, Inc.

Inspection At: Wood River, Illinois

Inspection Conducted: August 29, 1985

Inspector: *D. R. Gibbons*  
D. R. Gibbons  
Radiation Specialist

*9-20-85*  
Date

Approved By: *D. G. Wiedeman*  
D. G. Wiedeman, Chief  
Nuclear Materials Safety Section 1

*9-20-85*  
Date

Inspection Summary

Inspection on August 29, 1985 (Report No. 99990003/85001(DRSS))

Areas Inspected: Routine, unannounced inspection of licensee audits; training; radiation protection procedures; equipment and facilities; receipt and transfer; personnel radiation protection, external and internal; shipping incidents; notifications and reports; inspection and maintenance of equipment; inventory of byproduct material. The inspection involved ten inspector-hours onsite by one NRC inspector.

Results: Of the eleven areas inspected, three violations were identified.

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## DETAILS

### 1. Persons Contacted

- \*William Cunningham, Shell Oil Refinery Safety Officer
- \*Dale Carter, Manager, Longview Inspection, Inc.
- \*Terry Bruce, Radiographer
- Brian Sparks, Radiographer
- Dale Davis, Radiographer
- \*\*James Treat, Vice President, Longview Inspection, Inc.

\*Denotes those present during the exit interview of August 29, 1985.

\*\*Denotes a telephone contact on September 5, 1985.

### 2. Licensee Audits

The inspector reviewed audits and inspections performed by the licensee. Most of the audits are field audits and are recorded in personnel folders maintained by the licensee. All of the radiography personnel denoted under Persons Contacted were audited in July 1985 by the licensee's radiation protection officer. No violations were recorded during that audit. In addition, the licensee's field manager observes radiography personnel during field operations and records those observations on the daily use log maintained by the licensee. The licensee's radiation safety officer audits and inspects the field manager, and reviews records pertaining to the radiography program. Those audits are performed at least at quarterly intervals. Records of those audits are maintained at the licensee's home office in Longview, Texas.

Shell Oil Company representatives periodically observe licensee personnel during field operations. The Shell Oil Company representative who escorted the NRC inspector stated that no violations of Shell Oil Company Standard Operating Procedures were observed during any of their inspections.

No violations were identified.

### 3. Training

The inspector examined the records of training provided by the licensee. License Condition No. 13 requires the licensee to submit a Form TRC 31-1 to the Texas Department of Health, Radioactive Material Licensing Branch for each radiographer to verify completion of the licensee's radiation safety training. The licensee has submitted the proper forms for the three radiographers listed under Persons Contacted, and the radiographer's assistant was properly trained by the licensee. The above was confirmed by a telephone contact with personnel at the Texas Department of Health on September 5, 1985.

No violations were identified.

#### 4. Radiation Protection Procedures

The inspector was able to observe radiographic operations, and to observe the boundaries of the unrestricted areas for the source being used at the site. The licensee's operating procedures appeared to be followed as indicated in the license and safety manual approved for this license. Licensee personnel were also required to follow procedures as outlined by Shell Oil Company Safety Manuals and Operating Procedures. Those procedures are more restrictive than NRC requirements.

#### 5. Equipment and Facilities

- a. The radiographic operations were performed at two different locations in the Shell Oil Refinery. Two crews, and two different sources were used. Each exposure was less than 5 minutes duration. A 15 curie iridium-192 source, Serial No. 8764 used in an Automation Industries Model 520 camera was used at one location. A 22 curie iridium-192 source, Serial No. 8970 was used in another Automation Industries Model 520 camera at the other location. The curie strengths were determined from the decay charts licensee personnel carried for each source.
- b. Survey meters are calibrated by licensee personnel at 3 month intervals. The last calibration record is attached to each instrument. All survey instruments in use at this site (3) were in calibration.

No violations were identified.

#### 6. Receipt and Transfer

- a. The licensee surveyed and recorded the proper data as evidenced on the receiving record for the two (2) sources received by the licensee at this site.
- b. The exposure devices were transferred in proper containers and the survey results were properly recorded on transfer papers for those devices.
- c. The NRC inspectors review of shipping records indicate that the proper shipping containers were used and that proper DOT labels were affixed to the packages.

The licensee, however, had not registered as a user of the NRC approved shipping containers as required in 10 CFR 71.12(a)(c)(1)(3), and the licensee failed to maintain a complete certification and supporting safety analysis demonstrating that the special form sealed sources used by the licensee meet the requirements of 49 CFR 173.469.

The failure to register with the Commission as a user of NRC approved shipping containers constitutes a violation of 10 CFR 71.12(a)(c)(1)(3), and the failure to maintain a complete certification and safety analysis demonstrating that the special form sealed sources used by the licensee meet the requirements of 49 CFR 173.469 constitutes a violation of 10 CFR 71.5 and 49 CFR 173.476(a).

Two violations were identified.

7. Personnel Radiation Protection - External

- a. The licensee uses the Radiation Detection Company film badge service and the badges are turned in for monthly processing.
- b. The licensee maintains an exposure record for each monitored employee.
- c. The inspector's review of these records indicate that no individual was exposed to radiation levels in excess of 10 CFR 20.101 limits.
- d. Each radiographer and assistant records his daily dosimeter readings.
- e. The licensee's Radiation Safety Report contains the information which is required for exposure device surveys prior to securing them, and the information required for a radiation survey and the daily dosimeter readings.

No violations were identified.

8. Personnel Radiation Protection - Internal

- a. The licensee's procedure for leak testing the sealed source was found to be in agreement with the procedures outlined in their manual.
- b. The inspector's review of leak test records indicate that one of the sealed sources was leak tested on July 25, 1985 and the other sealed source was leak tested on April 15, 1985 and the amount of removable contamination was less than 0.005 microcuries.

No violations were identified.

9. Shipping Incidents

There have been no shipping incidents according to a licensee representative.

No violations were identified.

10. Notifications and Reports

Annual exposure reports are not required to be furnished to the Commission by a licensee from an Agreement State.

A Form NRC-241 was not submitted in a timely manner as required in 10 CFR 150.20(b)(1). The licensee submitted a form NRC-241 to the NRC Region IV office on July 16, 1985. The form should have been submitted by April 26, 1985, or three days prior to engaging in activity at Wood River, Illinois.

The failure to submit a Form NRC-241 in a timely manner constitutes a violation of 10 CFR 150.20(b)(1).

11. Inspection and Maintenance of Equipment

- a. Each radiographer, when he checks out an exposure device, performs a maintenance check of the equipment.
- b. The exposure devices, cables and the source chargers are inspected by the company's radiation protection officer at a frequency of every 90 days. The maintenance records indicated that the devices used during the inspection were properly inspected at 90 day intervals and again after arrival at the Wood River, Illinois, site.

No violations were identified.

12. Inventory of Byproduct Material

- a. The licensee is using the authorized sources and exposure devices for radiography purposes.
- b. The licensee maintains a quarterly inventory record of all sources.

No violations were identified.

13. Exit Interview

The inspector met with licensee representatives denoted under Persons Contacted in this report at the conclusion of the inspection. The results of the inspection were reviewed with those individuals. The inspector indicated that correspondence concerning this inspection would be sent from the NRC's Region III office and copies would be sent to the Region IV office for transmittal to the State of Texas, Radiological Health Service.