

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 030/10749/89001(DRSS)

Docket No. 030/10749

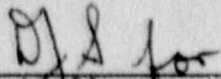
License No. 48-16296-01

Licensee: Midwest Inspection Services, Ltd.
P. O. Box 28023
Green Bay, WI 54304

Inspection At: 3171 Gross Street
Green Bay, WI 54304

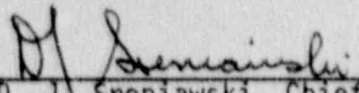
Inspection Conducted: August 2 through September 7, 1988, and
October 11, 1989

Inspector:


T. L. Simmons
Radiation Specialist

12/5/89
Date

Reviewed By:


D. J. Sreniawski, Chief
Nuclear Materials Safety
Section 1

12/5/89
Date

Approved By:


Bruce S. Mallett, Ph.D., Chief
Nuclear Materials Safety Branch

12/6/89
Date

Inspection Summary

Inspection on October 11, 1989 (Report No. 030-10749/89001(DRSS))

Areas Inspected: The October 11, 1989 inspection included a review of the licensee's overall radiation safety program to determine compliance with Commission rules, regulations and License Conditions and to obtain further information regarding an allegation partially covered during the 1988 inspection. The 1988 special and routine inspection findings are documented in Reports No. 030-10749/88001 and 89002(DRSS).

Results: Of the areas inspected, two apparent violations of NRC requirements were identified: (1) failure to maintain documentation of experienced radiographers training, License Condition No. 20; and (2) the RSO failed to field audit a radiographer in the third quarter of 1989 - a repeat violation, License Condition No. 20.

DETAILS

1. Persons Contacted

Donald Paschen, President and Radiation Safety Officer

2. Licensed Program

Midwest Inspection Services, Ltd. (MIS) performs industrial radiography using sealed sources of iridium-192 at temporary job sites. The by-product material currently possessed by the license is as authorized by the license.

The radiation safety program is managed by Donald Paschen, Radiation Safety Officer and President of MIS. MIS currently employs one full-time radiographer and four radiographers on an "as needed" basis.

3. Inspection History

a. Special Safety Inspection: August 2 through September 7, 1988

Results: Seven violations were identified.

- Comment:
1. Transported radioactive material with incomplete shipping papers.
 2. Failure to check dosimeters for accuracy of response annually.
 3. Failure to record pocket dosimeter results daily.
 4. Failure to leak test sealed sources every six months.
 5. Failure to perform a quarterly field audit of one radiographer during the second quarter of 1988.
 6. Two individuals were permitted to perform radiography before successfully completing a field test on the use of licensee's radiographer devices.
 7. Failure to maintain written tests covering the licensee's emergency and operating procedures.

b. Routine Safety Inspection: January 8, 1987

Results: One violation was identified.

Comment: Failure to administer radiographer training refresher test every two years.

4. Training

Since the last inspection the licensee has hired five experienced radiographers, one full-time and four on an "as needed" basis. Records indicate that each individual received a copy of MIS' operating and emergency procedures and passed the test designed for experienced radiographers. License Condition No. 20 which references the letter dated May 1, 1981, states in Attachment 6(f)CII; when an experienced radiographer is hired, documentation of his training and experience shall be maintained. During a review of licensee records it was determined that documentation of training and experience for two experienced radiographers, was not maintained by licensee as required. Both radiographers performed radiography on more than one occasion in 1988 and 1989 under Midwest's NRC license. Mr. Paschen assured the inspector that the radiographers in question possessed the proper credentials and were certified radiographers. During the course of the inspection, Mr. Paschen contacted one radiographer by telephone and had him fax the necessary information to the Green Bay office. Failure to maintain records documenting training and experience of radiographers is an apparent violation of License Condition No. 17.

One apparent violation of NRC requirements was identified.

5. Inspection and Maintenance of Devices, Containers, and Changers

The NRC inspector's review of inspection and maintenance records indicated that radiographic equipment is checked for defects and operation each day prior to use and equipment is inspected and maintained every three months as required.

No apparent violations of NRC requirements were identified.

6. Internal Audits

License Condition No. 20 which references letter dated May 1, 1981, requires in Attachment 6(g) that the Radiation Safety Officer conduct quarterly field audits of all radiographic personnel. According to the Radiation Safety Officer, audits of personnel performance are generally conducted as required, however, occasionally a quarter is missed due to time constraints. Licensee records indicated that one individual was not audited in the third quarter of 1989. The Radiation Safety Officer explained that this individual was missed because he only worked 18 days during the quarter. Failure to perform a quarterly field audit is an apparent violation of License Condition No. 20. This is a repeat violation.

One apparent violation of NRC requirements was identified.

7. Utilization Log

Utilization logs maintained by the licensee show for each sealed source

a description of the radiographic exposure device in which the sealed source is located, the identity of the radiographer to whom the source is assigned, the site where the equipment is used and dates of use as required by 10 CFR 34.27.

No apparent violations of NRC requirements were identified.

8. Inventories

Inventory records maintained by the licensee include the quantities and kinds of by-product material, location of sealed sources, and the date of the inventory. The NRC inspector's review of the last inventory conducted on September 29, 1989, showed the following by-product material in the licensee's possession

| <u>Isotope</u> | <u>Activity</u> | <u>Calibration Date</u> | <u>Source S/N</u> |
|----------------|-----------------|-------------------------|-------------------|
| Iridium-192 | 101.7 curies | 2/28/89 | R-73 |
| Iridium-192 | 101.7 curies | 6/23/89 | W-65 |
| iridium-192 | 104.1 curies | 5/15/89 | U-73 |

No apparent violations of NRC requirements were identified.

10. Field Location

The licensee is authorized to perform radiographic operations anywhere in the United States where the NRC maintains jurisdiction. On the day of this inspection no local field operations were being performed.

In December 1988, the licensee hired a radiographer who resides in Oklahoma to perform radiography mainly at Conoco of Ponco City, Oklahoma. The exposure device is transported to Oklahoma via an MIS vehicle. The device and the vehicle remain with the radiographer until a source replacement is required. According to the Radiation Safety Officer, source changes are performed at the MIS Wisconsin location. Although this is authorized by the license, the inspector recommended the licensee modify its license to include this as a permanent storage location.

11. Survey Meters

The licensee possesses at least twelve Gamma Industries Model No. 205B survey instruments which are calibrated by Gamma Industries/Amersham. The licensee uses a rotation method calibrating six meters every three months. The meters are capable of measuring radiation levels between 2 milliroentgens per hour and 1 roentgen per hour as required by 10 CFR 34.24.

No apparent violations of NRC requirements were identified.

12. Personnel Monitoring

R. L. Landauer supplies and processes whole body exposure badges for licensee personnel on a monthly basis. The licensee maintains exposure results under the NRC-5 form which limits personnel exposure to 1.25 rem quarterly. A review of exposure results for the period from June 1988 to August 1989 indicated that the maximum quarterly exposure was 640 millirem while the average was less than 200 millirem.

The licensee possesses a number of dosimeters which are capable of measuring between 0 and 200 millirem. These devices are checked for response on an annual basis.

No apparent violations of NRC requirements were identified.

13. Leak Tests

The licensee performs leak tests on sealed sources at six month intervals as required or the source is withdrawn from service and stored until a leak test is performed. Of the 1988 and 1989 records reviewed the results were less than 0.005 microcuries.

No apparent violations of NRC requirements were identified.

14. Receiving, Shipping and Transferring of Radioactive Materials

Since the last inspection in 1988, the licensee has received three and returned four iridium-192 sources. Records indicate the packages are surveyed at a meter and at the surface shortly after receipt. Results of these surveys appeared to within normal limits.

Appropriate shipping papers accompany the shipments during transport to job sites.

No apparent violations of NRC requirements were identified.

15. Allegation Review

During the August 2 through September 7, 1988 inspection, several allegations were reviewed and the inspection findings were documented in NRC Report No. 030-10749/88001(DRSS). The allegation listed below was not documented in the report because additional inspection effort was required.

Allegation:

The Radiation Safety Officer (RSO) was not seen performing field audits even though records indicated that audits took place.

Findings:

The NRC reviewed audit records and found two indicating that the RSO audited a specific radiographer on March 20, 1985 and October 3, 1985. These audits were allegedly conducted at Kewaunee nuclear power plant in Kewaunee, Wisconsin. Kewaunee visitor and contractor sign-in logs indicate that the radiographer was onsite both dates, however, the RSO was not signed in on either date.

Further investigation by the NRC showed that Kewaunee's Quality Assurance Office (QAO) maintains records of radiography performed at the site. Their records showed that radiography was not performed on March 20th but was performed on March 22nd and March 25th. Contractor sign-in logs show that the RSO was onsite during these two days.

On October 3, 1985, radiography was performed by a radiographer in the vehicle storage building, a protected area. According to the visitor and contractor sign-in logs, the RSO was not onsite. Security personnel indicated that due to the location of the radiographic operation, it would have been impossible to observe activities in those areas from outside the fence or from inside the security building. Further, no one is allowed access to the site beyond the security building without first signing the contractor or visitor log.

Conclusion:

Between the licensee's audit records, Kewaunee's contractor and visitor sign-in logs and the QAO's records, there appears to be a discrepancy regarding when and/or if field audits dated March 20, 1985 and October 3, 1985 of a specific radiographer's performance took place. Therefore, with regard to these two field audits, the allegation appears to be substantiated.

16. Exit Meeting on October 11, 1989

An exit meeting was held with Mr. Don Paschen at the conclusion of the inspection on October 11, 1989, to review the apparent violations and potential corrective actions. Also discussed was the inability to perform an unannounced inspection or any inspection of the MIS license without making protracted arrangements. The reason is due to the availability of the Radiation Safety Officer. This matter was discussed during the 1988 inspection at which time Mr. Paschen stated that he would train one other individual to know the record keeping system and other aspects of the radiation safety program. As of the date of this inspection no one has been trained.

Mr. Paschen was contacted by telephone on November 27, 1989, and was asked to be prepared to discuss the following issues at an Enforcement Conference on December 14, 1989:

- a. The allegation and NRC findings discussed in Section 15 of this report. Mr. Paschen was asked to explain the circumstances and provide any documentation to support his position (e.g., expense records, travel records, business records, etc).
- b. The repeat violation as stated in Section 6 of this report.
- c. Unresponsiveness to NRC inspections, for example, the difficulty inspectors have had in arranging an inspection date even though the licensee is well aware that his license calls for an annual inspection frequency and the failure of the licensee to appoint someone as a keeper of the records after agreeing to do so.

The Enforcement Conference will be held in the Region III office at 1:30 p.m. CST. A court reporter will record these proceedings.