

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 30-11256/81-02

Docket No. 03011256 License No. 42-16573-01 Priority II Category C(1)

Licensee: M. W. Kellogg Constructors, Inc.
3440 Richmond Avenue
Houston, Texas 77046

Inspection At: Public Service of Indiana Power Plant
near Mount Carmel, IL in Gibson County IN

Inspection Conducted: September 14, 1981

Inspectors: W. J. Slawinski *DJS for*
Radiation Specialist

9/29/81

Approved By: *D.J. Sreniawski*
D. J. Sreniawski, Chief
Materials Radiation Protection
Section 2

10/29/81

Inspection Summary

Inspection on September 14, 1981 (Report No. 30-11256/81-02)

Areas Inspected: Routine, unannounced inspection of licensee internal audits; inspection and maintenance of equipment; utilization logs; inventory of by-product material; equipment and facilities; radiation protection procedures; personnel radiation protection, external and internal; receiving and shipping procedures and NRC independent measurements. The inspection involved four inspector-hours onsite by one NRC inspector.

Results: Of the nine areas inspected, no items of noncompliance were identified in eight areas; one apparent item of noncompliance (failure to post high radiation areas as required by 10 CFR 34.42 - Report Item 6) was identified in one area.

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DETAILS

Organizational Structure

Ken Kluge, Radiation Protection Officer (RPO), Houston, Texas
Jim Turner, Assistant Radiation Protection Officer, Houston, Texas
John Vinitski, Chief Field Engineer, temporary job site
*Stan Spradley, Senior Weld Inspector and Radiographer, temporary job site
*Bob Weaver, Radiographer, temporary job site
Dave Kendell, Radiographer Helper, temporary job site
Dallas Lee, Radiographer Helper, temporary job site

*Provided all information in this report.

1. Internal Audits

Licensee representatives stated that Jim Turner performs an internal audit of the radiography program on a quarterly basis. Audits were performed in March and July 1981. These audits include field inspections of radiographic personnel.

No records were available for review at the Field Office but are maintained at the Home Office in Houston Texas.

No items of noncompliance were identified.

2. Inspection and Maintenance of Equipment

a. Each radiographer performs, prior to use each day, an equipment check on all exposure devices and related equipment assigned to him.

b. Each quarter the RPO or Assistant RPO performs an inspection of exposure devices, storage containers, source changers, and related equipment to assure proper functioning. Records are maintained at the Home Office in Houston, Texas.

Radiographers stated that equipment inspection and necessary maintenance were last performed in July 1981.

No items of noncompliance were identified.

3. Utilization Logs

Utilization logs were reviewed for the period January 12, 1981 to the date of this inspection, September 14, 1981. All information required by 10 CFR 34.27 is recorded.

No items of noncompliance were identified.

4. Inventory of Byproduct Material

Quarterly inventory records were reviewed for April and July 1981. Records contain all information required by 10 CFR 34.26.

Only one source (iridium-192, SN 9389, 56 curies on July 6, 1981) and exposure device (Tech-Ops Model 660, SN 2159) is currently available at this site.

No items of noncompliance were identified.

5. Equipment and Facilities

a. Facilities

Radiographic work at Public Service of Indiana Power Plant began on January 12, 1981. All radiographic exposures are performed during off hours, after 5:00 p.m. Exposures times are typically less than five minutes per radiograph.

b. Equipment

Licensee survey meters consist generally of two types, Ludlum Model-4 and Ludlum Model-5. Ten survey meters were available at the time of this inspection. Survey meters are calibrated by Nuclear Services, Inc. within three months prior to the day of licensee use.

No items of noncompliance were identified.

6. Radiation Protection Procedures

No field operations were being conducted at the time of this inspection. Licensee representatives stated that during operations, access to restricted areas is controlled by rope barriers, signs and visual surveillance.

Licensee representatives stated that they were not certain whether high radiation area signs were used on all occasions during radiographic operations nor could high radiation area signs be produced on the day of the inspection. Furthermore, Mr. Spradley stated that they intended on doing radiographic work sometime that evening and apparently would have to work without posting high radiation area signs. This is an item of noncompliance with 10 CFR 34.42 which states that high radiation areas be conspicuously posted as required by 10 CFR 20.203(c)(1).

Area survey records were reviewed from January 1, 1981 through September 13, 1981. Radiation levels in unrestricted areas appeared to be less than the limits established in 10 CFR 20.105.

One apparent item of noncompliance was identified.

7. Personnel Radiation Protection

a. External

The film badge services of R. S. Landauer, Jr., and Company are used by the licensee on a two week basis. All personnel involved with radiographic operations are provided with film badges and direct reading pocket dosimeters. A review of exposure records for the period January 12, 1981 through August 23, 1981 showed a maximum quarterly whole body exposure of 220 millirem and an average whole body exposure of approximately 80 millirem.

Dosimeters are recharged and the doses recorded daily. Dosimeter readings are comparable to film badge readings.

b. Internal

Sealed sources are leak tested by the manufacturer prior to shipment to the licensee. Leak test records were reviewed for all sealed sources received and possessed since January 12, 1981. Receipt and transfer records indicate that sealed sources are returned to the manufacturer (Tech-Ops) within six months from date of initial leak test.

No items of noncompliance were identified.

8. Receiving and Shipping Procedures

Licensee representatives stated that no shipping incidents have occurred at this job site.

Reviews of records showed that materials are received in accordance with 10 CFR 20.205(c)(1) and transferred in accordance with 10 CFR 30.41 and 30.51. Records indicate that proper shipping containers were used and that proper DOT labels were affixed to packages.

No items of noncompliance were identified.

9. Independent Measurements

NRC measurements were made using a Region III Xetex (NRC #008991) calibrated June 21, 1981.

Six inches from licensee's exposure device (Tech-Ops Model 660) containing approximately 30 curies of iridium-192 = 5.0 mrem/hr.

Surface of licensee's storage vault containing the above mentioned exposure device = background levels.

Exit Interview

The results of the inspection were reviewed with Messrs. Spradley and Weaver. The inspector indicated that correspondence concerning this inspection would be forwarded from the NRC's Region IV Office.