

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

Region I

Report No. 80-01
Docket No. 70-0048
70-1503
License No. SNM-47 Priority I Category B
SNM-1400

Licensee: Westinghouse Electric Corporation
Gateway Center
Pittsburgh, Pennsylvania 15222

Facility Name: Westinghouse Research and Development Center

Inspection at: Churchill Borough, Pittsburgh, Pennsylvania

Inspection conducted: June 4, 1980

Inspectors: Francis Costello
F. Costello, Radiation Specialist

July 31, 1980
date signed

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Approved by: J. Kinneman
J. Kinneman, Chief, Materials Radiological
Protection Section

7-31-80
date signed

Inspection Summary:

Inspection on June 4, 1980 (Combined Report Nos. 70-0048/80-01 and 70-1503/80-01)

Areas Inspected: Routine, unannounced inspection including scope of activities, personnel monitoring, radiation safety committee, hot cell entry controls, radiation work permits, airborne releases to unrestricted areas, liquid releases to sanitary sewerage, radioactive waste, and training. The inspection involved eight inspector hours on site by one NRC inspector.

Results: No items of noncompliance were identified in the nine areas inspected.

DETAILS

1. Persons Contacted

*Mr. L. Horrigan, Manager, Research and Development Operations
*Mr. P. Felice, Radiation Safety Officer
*Dr. E. Baker, Chairman, Radiation Safety Committee
Mr. D. Harrison, Manager, Nuclear Materials
Mr. K. Galbraeth, Health Physics Technicians

*Denotes those present at the exit interview.

2. Scope of Activities

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There are three current activities covered by the license. First, the licensee has been using xenon-133 to calibrate radiation monitors used for post accident monitoring at nuclear power plants. Second, components for nuclear power plants are being tested for response to radiation by exposing them to cobalt-60 and cesium-137 gamma ray sources in a hot cell. Thirdly, the licensee has equipped a trailer with a 300 microgram californium-252 source to develop an explosive detection system. The trailer has been taken to airports in Pittsburgh, Pennsylvania and Boston, Massachusetts to test the system. In addition, the licensee possesses small quantities of uranium for use in reactor fuel pellet studies and standards source for calibrations.

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The principal current activity covered by this license involves the metallurgical testing of sections of steam generator tubes from nuclear power plants and examination of surveillance capsules irradiated at reactors. The material is handled in a hot cell.

3. Personnel Monitoring

The inspector reviewed the licensee's personnel monitoring records for the time period since the last inspection. No individual received an exposure in excess of 10 CFR 20.101 limits.

No items of noncompliance were identified.

4. Radiation Safety Committee

The inspector reviewed the minutes of the licensee's radiation safety committee meetings. He noted that the committee met twice a year and conducted an annual audit as required. He noted that the committee had developed an Approved Isotopes User list.

No items of noncompliance were identified.

5. Hot Cell Entry Controls

The inspector noted that all cells were equipped with alarms and interlocks to prevent unauthorized entry into high radiation areas. The inspector observed a test of the cell alarms and noted that they performed as required.

No items of noncompliance were identified.

6. Radiation Work Permits

The inspector reviewed selected copies of the licensee's radiation work permits. He noted that a radiation work permit is required for all work in restricted areas. While touring the facility, the inspector noted that restricted areas were posted with a notice requiring a radiation work permit prior to entry.

No items of noncompliance were identified.

7. Airborne Releases to Unrestricted Areas

The inspector reviewed records of the licensee's evaluation of airborne releases to unrestricted areas. He noted that releases from the licensee's hot cells were filtered and continuously monitored. He also noted that xenon releases during the calibration of post accident monitors were properly evaluated to ensure that the limits of 10 CFR 20.106 were met.

No items of noncompliance were identified.

8. Liquid Releases to Sanitary Sewerage

The inspector reviewed the licensee's evaluation of liquid releases since the last inspection. One release was made from the licensee's holding tank to the sanitary sewerage system in 1979. The concentration was approximately 10^{-8} microcuries per milliliter gross beta prior to dilution.

No items of noncompliance were identified.

9. Radioactive Waste

The inspector reviewed the licensee's waste handling procedures. He noted that surveillance capsules are stored by the licensee on an indefinite basis. Waste generated from steam generator tube sections is monitored, evaluated as to isotope and quantity, packaged in 55 gallon drums and transferred to the Westinghouse facility in Waltz Mills, Pennsylvania for disposal.

No items of noncompliance were identified.

10. Training

The radiation safety officer conducts reviews of procedures and safety requirements for all personnel on an annual basis. The inspector interviewed selected personnel and determined through questioning that they were familiar with the licensee's procedures.

No items of noncompliance were identified.

11. Exit Interview

The inspector met with the licensee representatives denoted in Paragraph 1 on June 4, 1980 and summarized the scope and results of the inspection.