

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

REGION V

Report No. 70-984/80-02
Docket No. 70-984 Licence No. SNM-942 Safeguards Group 5
Licensee: Pacific Northwest Laboratories
Battelle Blvd.
Richland, Washington 99352

Facility Name: Pacific Northwest Laboratories
Inspection at: Richland, Washington
Inspection conducted: December 18, 1980

Inspectors: *William J. Cooley* *2/2/81*
W. J. Cooley, Fuel Facilities Inspector Date Signed
_____ Date Signed

Approved by: *R. D. Thomas, Jr.* *2-2-81*
R. D. Thomas, Chief, Materials Radiological Date Signed
Protection Section

Approved by: *H. E. Book* *2-2-81*
H. E. Book, Chief, Fuel Facility and Materials Date Signed
Safety Branch

Summary:

Inspection on December 18, 1980 (Report No. 70-984/80-02)

Areas Inspected: Organization; facility changes and modifications;
internal audit and review; radioactive waste management; and inventory.
The inspection involved 7 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified within
the scope of this inspection.

DETAILS

1. Persons Contacted

H. V. Larson, Manager, Occupational and Environmental Protection Department
*C. R. Richey, Manager, Radiological Safety and Engineering
J. R. Huston, Senior Development Engineer
N. V. Nisick, Senior Research Scientist
D. E. Friar, Research Scientist
J. R. Berry, Senior Technical Specialist

*Denotes those attending the exit interview.

2. Organization

Ms. D. E. Friar presently has the lead responsibility for the conduct of audits and appraisals of all licensee facilities. The audit responsibilities of W. H. Knox, who has terminated since the last inspection, were absorbed in this change.

3. Inventory

At the time of this inspection, the licensee's inventory of special nuclear material held under the subject license remained very much less than one effective kilogram. Approximately 13 kilograms of low enriched uranium was being used in the development of decontamination techniques. That material had been recently received by the licensee and a large portion remained in its shipping containers.

4. Internal Review and Audit

The licensee is re-evaluating the entire area of auditing. All principal facilities used by the licensee had been audited in 1980. Much of that work had been accomplished by assembling teams of experts in several fields. The licensee's experience was that the teams became cumbersome when used in audits and appraisals of a single facility. The present plans are to use smaller teams and to spread that expertise over a longer period of time.

Subsequent to this inspection, the report of an annual appraisal of Building 306-W was reviewed. No licensed radioactive material had been used in that building for more than one year.

The date of that appraisal was September 4, 1980. The subjects covered in the appraisal were radiation protection, training, hazardous material shipping, waste management, emergency preparedness, and nuclear safety. The appraisal was performed by a team of five persons representing expertise in the six subject areas covered. The appraisal was based on the experience of previous audits and

appraisals of building 306, the building 306 Safety Analysis Report, and a checklist of specific questions derived from that background information.

The annual appraisal report was dated September 24, 1980. The report was well organized and well written, giving the appraisal team members and operations representatives contacted, and listing the subject areas reviewed along with the significant observations in each area.

The report was transmitted to Building 306-W area management on October 14, 1980. That transmittal stated that no serious safety deficiencies were found. The transmittal offered six observations which the appraisal team considered significant and requiring the evaluation of operations management. Those observations were addressed to the adequacy of posting and record keeping, the availability of adequate air sampling and contamination detection instrumentation, and the need for additional training in the area of hazardous materials shipping procedures. The transmittal placed a limitation on the date of reply to the appraisal team's observations.

A timely reply to those observations was dated October 29, 1980. The reply addressed each of the six observations, presented an evaluation and proposed action in each case.

5. Radioactive Waste Management/Monitoring of Liquid Waste Retention Basins and Tanks

With respect to its use of NRC licensed radioactive materials in privately owned facilities, this licensee does not make use of evaporation ponds or submerged radioactive liquid waste lines or tanks. All liquid radioactive waste generated by the licensee in his private work is solidified and disposed of to a licensed land burial facility.

The subject licensee occasionally uses radioactive material under prime contract to the Department of Energy (license exempt) and NRC licensed material simultaneously in the same facility. In those cases, easily separated solid and liquid licensed material waste is appropriately treated and sent to a licensed land burial facility. Waste which cannot be separated or which are clearly prime contract material waste are transferred to Department of Energy waste handling facility located at the Hanford reservation.

For the past several years through the presently reported inspection the contribution of radioactive waste from the licensee's private operations has been minimal as compared to that generated in its prime contract work for the Department of Energy.

6. Management Interview

The scope and the results of this inspection were discussed with licensee management at the conclusion of the inspection on December 18, 1980. Mr. Richey was informed that no items of noncompliance or deviations were observed within the scope of the inspection.