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

Region I

Report No. 50-271/79-22

Docket No. 50-271

License No. DPR-28 Priority -- Category C

Licensee: Vermont Yankee Nuclear Power Corporation
20 Turnpike Road
Westborough, Massachusetts 01581

Facility Name: Vermont Yankee Nuclear Power Station

Inspection at: Vernon, Vermont

Inspection conducted: December 5-6, 1979

Inspectors: P. Clemons 1/2/80
P. Clemons, Radiation Specialist date signed

date signed

date signed

Approved by: W. H. Gordon actg 1/9/80
Chief, Radiation Support Section, Fuel Facilities and Materials Safety Branch date signed

Inspection Summary:

Inspection on December 5-6, 1979 (Report No. 50-271/79-22)
Areas Inspected: Special unannounced inspection by a regional based inspector of the licensee's response to Bulletin 79-19, including: regulatory requirements, burial site requirements, procedures, training, audits, records of shipments, onsite observations, and discrepant shipping reports.
Results: No items of noncompliance or deviations were disclosed.

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

Principal Licensee Employees

Mr. D. Girroir, Technical Assistant
Mr. R. Leach, Health Physicist
Mr. W. Murphy, Assistant Plant Superintendent
Mr. G. Weyman, Chemistry and Health Physics Supervisor

The inspector reviewed Vermont Yankee's response to IE Bulletin No. 79-19 in-office to assure that all information required by the bulletin was included and to ascertain if corrective action commitments were also included.

The Health Physicist is the individual responsible for the safe, transfer, packaging and transport of low level radioactive waste material.

2. Regulatory Documents

The inspector verified that the licensee has a set of DOT and NRC regulations. The licensee maintains a copy of 10 CFR from the U.S. Government Printing Office, Superintendent of Documents as part of a subscription service. This service apparently assures that the 10 CFR is maintained current. The licensee does not have a similiar subscription service for 49 CFR therefore this document is not maintained current.

The inspector noted that the licensee does have a current copy of the R. M. Graziano document that is published by the Bureau of Explosives, and the inspector was informed that this document is maintained current by a subscription service.

3. Burial Site Requirements

According to a licensee representative waste shipments are made only to the burial site in South Carolina. At the inspector's request, he was shown a copy of Chem-Nuclear's License No. 097, that was issued by the State of South Carolina. The inspector also reviewed a copy of the burial site criteria that the licensee possessed with an effective date of December 1, 1979.

4. Procedures

In response to IE Bulletin 79-19, the licensee stated that all radioactive material is processed and packaged in accordance with written, management approved procedures.

The inspector reviewed the following procedures to determine if they were approved:

"Radwaste Cask Handling"
Procedure No. O.P.-2511, Revision 5

"Shipment and Receipt of Radioactive Materials"
Procedure No. A.P.-0S04, Revision 5

"Solid Radwaste"
Procedure No. O.P.-2153, Revision 4

All of the procedures had been approved by the Plant Operating Review Committee (PORC).

According to a licensee representative the procedures cited above, represents the sum total of all procedures governing radioactive waste.

The "Solid Radwaste" procedure is specific for the Auxiliary Operators who are transferring the waste from the primary coolant clean-up system, floor drains and equipment drains, etc. The other two procedures are directed toward health physics personnel.

5. Training

In responding to IE Bulletin 79-19 the licensee stated:

"Training and periodic retraining covering NRC and DOT requirements, and applicable plant procedure requirements is provided for all employees involved in the transfer packaging and transport of radioactive material. Records of this training are maintained."

The inspector reviewed records that indicated health physics personnel received training in plant procedures and DOT regulations in November 1978. The records did not indicate that these employees received training in 10 CFR 71 regulations.

The records did not indicate that Auxiliary Operators received any training in 1978 and these are personnel who are required to transfer the waste from the various systems to the centrifuge.

The licensee has agreed to provide training and periodic retraining covering NRC and DOT regulations, applicable plant procedures, waste burial license requirements, and minimizing low level waste to appropriate personnel.

In addition to the training provided by the licensee, according to a licensee representative, they are also considering a seminar presented by the Nuclear Energy Waste Management Consultants (NEWC). A proposed seminar agenda includes: types of regulations (DOT, NRC, DOE, IAEA, etc.), responsibilities as a shipper, applying the regulations (hazardous materials tables, definitions - LSA, etc.), types of shipments, and emergency responses.

6. Audit

The inspector verified that the licensee has implemented an audit program of activities associated with the transfer, packaging, and transport of low level radioactive wastes. The inspector reviewed the audit report, 79-3-A, of the audit performed on October 11, 1979.

The inspector questioned a licensee representative about the qualifications of the two individuals performing the audit. The inspector was told that the two individuals were from the corporate office. The inspector asked if the individuals had experience in the areas to be audited. He was told that the individuals had been employed in the nuclear industry for several years, but that they did not possess extensive expertise in the areas to be audited. The inspector noted that in order for an audit to be adequate, the auditors must be familiar with what is being audited.

7. Records Of Shipments

As the inspector reviewed licensee shipping records, he observed two shipments made during the month of October 1979. He noted that Shipment No. 79-20 made on or about October 15, 1979 contained approximately 580 curies of radioactive waste. Shipment No. 79-22 made on or about October 16, 1979, contained approximately 12 curies of radioactive waste.

Shipment No. 79-20 was made in the Hittman HN-200 cask, and Shipment No. 79-22 was made in the Hittmann HN-100 cask. Noting that both shipments exceeded Type A quantities, the inspector requested copies of the Certificates of Compliance. The inspector was given a copy of Certificate of Compliance No. 6574, Revision 3, for the HN-200 cask and Certificate of Compliance No. 9086, Revision 4, for the HN-100 cask.

The inspector noted that each Certificate of Compliance referenced other documents. 10 CFR 71.12 establishes a general license for delivery to a carrier for transport:

> "(b) In a package for which a license, certificate of compliance or other approval has been issued by the Commission's Director of Nuclear Material Safety and Safeguards for the Atomic Energy Commission, provided that:
>
> (1) The person using a package pursuant to the general license provided by this paragraph:
>
> (i) Has a copy of the specific license, certificate of compliance, or other approval authorizing use of the package and all documents referred to in the license, certificate, or other approval, as applicable..."

The inspector requested to see copies of all of the referenced documents inasmuch as the regulations requires licensees to have copies of all such documents prior to shipping. A licensee representative provided the inspector with copies of all of the referenced documents.

No items of noncompliance were identified.

8. Onsite Observations

On December 5, 1979, the inspector toured all areas associated with radioactive waste operations. The inspector noted that no operations were being performed involving the rad-waste system. He noted that one HN-100 cask had been received onsite and was awaiting to be filled with spent resin.

9. Discrepant Reports

The inspector discussed three Radioactive Waste Shipment Discrepancy Reports with a licensee representative. Two of the reports were concerned with about 1.5 gallons of free standing liquids in two HN-100 casks, and the third report was concerned with contamination on the floor of a van containing solidified waste in 55 gallon metal drums.

The representative informed the inspector that the HN-100 cask has a liner that is placed inside the cask to receive the spent resin. He stated that as soon as the liner is filled with resin, it is washed inside the cask using water from a hose. The HN-100 has a plug in its bottom which is removed to drain the water used to wash the liner. The licensee representative stated that it is residual water from the liner washing that is not completely drained from the HN-100 cask, that was observed at the burial site as the liner was removed from the shipping cask.

With reference to the contamination on the floor of the van, the licensee representative stated that the 55 gallon drums were thoroughly monitored and found to be within acceptable limits prior to being loaded onto the van. The licensee representative stated that the containers were strong, tight packages at the time of shipment and they did not leak causing the contamination.

The inspector asked if the McCormack van (closed van No. 304) had been monitored upon receipt on site, and he was told that the van was not monitored upon receipt. The inspector told the licensee representative that the van should have been monitored upon receipt on site, and inasmuch as it was not monitored, the licensee cannot refute the burial site accusation.

The corrective action taken by the licensee in the two cited cases are as follows:

1. All vans used for shipping radioactive waste material shall be monitored upon receipt onsite.

2. The liners used in the HN-100 cask, will not be washed. They will be enclosed in plastic within the cask, and once the resins are loaded into the liner, the liner will be completely covered with plastic within the container.

10. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 6, 1979. The inspector summarized the purpose and scope of the inspection, and the findings as presented in this report.