

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

Region I

Report No. 50-271/81-07
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: March 25-27 and April 1-3, 1981

Inspectors: *P. Clemons* 5/29/81
P. Clemons, Radiation Specialist date signed

P. J. Knapp 5/29/81
Approved by: P. J. Knapp, Chief, Facility Radiological date signed
Protection Section

Inspection Summary:

Inspection on March 25-27 and April 1-3, 1981 (Report No. 50-271/81-07)

Areas Inspected: Routine unannounced inspection by a regional based inspector of the transportation activities including: quality assurance program, immediate action letter, procedures, shipments of radioactive waste and shipping documentation.

Results: Of the five areas inspected, one item of noncompliance in one area was identified (Shipped without a license because quality assurance program was not implemented - Paragraph 2).

Region I Form 12
(Rev. April 77)

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DETAILS

1. Persons Contacted

- * Mr. E. Bowles, Training Department Supervisor
- * Mr. L. Bozek, Operational Quality Assurance
- Mr. W. Conway, Vice President and Manager of Operations
- * Mr. R. Kenney, Technical Assistant
- * Mr. R. Leach, Health Physicist
- Mr. J. McCarthy, Chemist-Health Physics Assistant
- * Mr. W. Murphy, Plant Superintendent
- * Mr. J. Pelletier, Assistant Plant Superintendent
- Mr. D. Pike, Manager, Operational Quality Assurance
- * Mr. M. Prystupa, Chemistry and Health Physics
- Mr. L. Reed, Operational Quality Assurance Coordinator
- * Mr. D. Reid, Engineering Support Supervisor
- Mr. D. Weyman, Chemistry and Health Physics Supervisor

NRC

- * Mr. S. Collins, Resident Inspector
- * Mr. W. Raymond, Senior Resident Inspector

The inspector also interviewed the Staff Training Supervisor, the Operations Training Supervisor, and the Plant Training Coordinator.

* denotes those present at the exit interview.

2. Quality Assurance Program

10 CFR 71.12, "General license for shipment in DOT specification containers, in packages approved for use by another person, and in packages approved by a foreign national competent authority," states, "A general license is hereby issued to persons holding a general or specific license issued pursuant to this chapter, to deliver licensed material to a carrier for transport, provided the licensee has a quality assurance program, whose description has been submitted to and approved by the Commission as satisfying the provisions of 10 CFR 71.51."

10 CFR 71.51(a), "Establishment and maintenance of a quality assurance program," states, "The licensee shall establish, maintain and execute a quality assurance program satisfying each of the applicable criteria specified in Appendix E, "Quality Assurance Criteria for Shipping Packages for Radioactive Material," and satisfying any specific provisions which are applicable to the licensee's activities including procurement of packaging. The description of the quality assurance program shall include a discussion of which requirements of Appendix E are applicable and how they will be satisfied."

10 CFR 71.51(d), states, "A Commission-approved quality assurance program which satisfies the applicable criteria of Appendix B of Part 50, of this chapter and which is established, maintained and executed with regard to transport packages shall be deemed to satisfy the requirements of paragraph (a) of this section."

The inspector examined the licensee's Quality Assurance Program, approved by Quality Assurance Program Approval for Radioactive Material Packages, Approval No. 0068, dated May 4, 1979 against the criteria of 10 CFR 50, Appendix B, use of which was authorized by the approval document.

The inspector noted that 10 CFR 50, Appendix B, Criterion II, "Quality Assurance Program" states in part that, "...The applicant shall establish at the earliest practicable time, consistent with the schedule for accomplishing the activities, a quality assurance program which complies with the requirements of this appendix... The applicant shall identify the structures, systems and components to be covered by the quality assurance program..."

The inspector also noted that the licensee's application to the Commission, dated June 5, 1978, and incorporated into Approval No. 0068, states: "This letter will serve as notification that the above listed Licensees have a Nuclear Regulatory Commission approved Quality Assurance Program. This program addresses the 18 Criteria of 10 CFR 50, Appendix B and has been designated as the Yankee Operational Quality Assurance Program (YOQAP-1-A). YOQAP-1-A will be applied to radioactive material transport packages, as appropriate, effective July 1, 1978."

The inspector observed that YOQAP-1-A, Section II, states, "The structures, systems, components and other items requiring quality assurance are listed in Appendix C, D and E for the Yankee Operating Plants."

The inspector asked the licensee representative if the radioactive waste shipping packages had been incorporated in Appendix C, D or E of YOQAP-1-A, thereby designating the packages as items covered by the quality assurance program. The inspector was told that the shipping packages had not been so identified and were not listed in any appendix.

The inspector noted that 10 CFR 50, Appendix B, Criterion IV, "Procurement Document Control," states in part that: "...To the extent necessary, procurement documents shall require contractors or subcontractors to provide a quality assurance program consistent with the pertinent provisions of this appendix."

The inspector reviewed purchase orders for the shipping package liner, an integral part of the package, to determine if the licensee required the liner vendor to provide a quality assurance program consistent with the requirements of Appendix B, 10 CFR 50. The inspector noted that the purchase orders did not specify the requirement for the vendor to provide a quality assurance program. The licensee representative stated that he did not know the reason for the omission.

The inspector reviewed changes to Procedure No. O.P. 2153, Revision 5, "Solid Radwaste." This was a procedure that had been revised as a result of a problem with a shipment to Beatty, Nevada, in January 1981.

The changes to the procedure required the Auxiliary Operators to, select and inspect for integrity 55-gallon drums, that are used in the compaction of solid radwaste, prior to the first use of each drum.

The inspector noted that 10 CFR 50, Appendix B, Criterion VI, "Document Control," states, "Measures shall be established to control the issuance of documents, such as instructions, procedures and drawings, including changes thereto, which prescribe all activities affecting quality. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed."

On March 25, 1981, accompanied by the Chemist-Health Physics Assistant, the inspector went to the Auxiliary Operators Radioactive Waste Control Room to determine if the procedure was located in the area, the location where the prescribed activity is performed. At the inspector's request, the Chemist-Health Physics Assistant looked through various documents trying to locate Procedure No. O.P. 2153, Revision 5. He was unable to produce the document. On March 26, 1981, the Chemist-Health Physics Assistant informed the inspector that the procedure had been found in the Auxiliary Operators Office, an area some distance away from the location where the compacting operation is performed.

The inspector asked a licensee representative if they had established measures for inspecting the shipping package liners and 55-gallon drums as they are received onsite. The inspector noted that 10 CFR 50, Appendix B, Criterion XIV, "Inspection, Test and Operating Status," states, "Measures shall be established to indicate, by the use of markings such as stamps, tags, labels, routing cards or other suitable means, the status of inspections and tests performed upon individual items of the nuclear power plant or fuel reprocessing plant. These measures shall provide for the identification of items which have satisfactorily passed required inspections and tests, where necessary to preclude inadvertent bypassing of such inspections and tests."

The inspector was told by a licensee representative that the liners and drums are not inspected upon receipt, therefore, measures have not been provided for identifying the liners and drums that have satisfactorily passed some inspections and tests.

10 CFR 50, Appendix B, Criterion XVIII, "Audits," states, "A comprehensive system of planned and periodic audits shall be carried out to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program. The audits shall be performed in accordance with written procedures or check lists by appropriately trained personnel not having direct responsibilities in the areas being audited."

The licensee performed an audit of the Health Physics area on April 30, 1981 and May 1 and 2, 1981 (Report No. VY 80-03), but the audit was inadequate inasmuch as it did not verify compliance with the requirement for a quality assurance program for waste shipping packages as defined in 10 CFR 50, Appendix B. The audit did address certain transportation activities, but specifically the audit did not address procurement document control; document control; control of purchased material, equipment and services; inspection, test and operating status; and quality assurance records.

The inspector noted that the licensee made at least four shipments of low specific activity radioactive waste material, containing more than a Type A quantity in each package, to burial sites during 1980.

In each case, the shipments were made in the Hittman HN-100-2 shipping casks. The shipments were as follows:

<u>Shipment No.</u>	<u>Shipment Date</u>	<u>Activity (Curies)</u>
80-37	July 3, 1980	4.37
80-50	September 17, 1980	4.92
80-54	October 17, 1980	4.05
80-57	October 28, 1980	18.00

The inspector observed that the above shipments were made in containers for which there was no authorization because the licensee had not implemented the quality assurance program as required, therefore, this represents noncompliance with 10 CFR 71.12. (81-07-01)

3. Immediate Action Letter

On April 1, 1981, an Immediate Action Letter was sent to the licensee by R:I requesting the licensee to review and evaluate the implementation of their quality assurance program for waste packaging prior to any further shipments. The licensee responded on April 24, 1981, stating that the review and evaluation of the quality assurance program had been completed.

This program will be reviewed during a subsequent inspection. (81-07-02)

4. Procedures

The inspector reviewed two licensee procedures that had recently been revised. The procedures reviewed were Procedure No. O.P. 2153, Revision 5, DI 81-01, "Solid Radwaste" and Procedure No. O.P. 2511, Revision 7, "Radwaste Cask, Drum and Box Handling." Procedure No. O.P. 2153 had been revised to require that the Auxiliary Operators inspect 55-gallon drums for integrity prior to using them in the compacting operation. Procedure No. O.P. 2511 had been revised to require that Chemistry and Health Physics Technicians inspect the compacted 55-gallon drums for integrity prior to the drums being loaded on a vehicle for disposal.

These procedures had been revised as a result of a shipment to Beatty, Nevada, in January 1981. The inspector was informed that Chemistry and Health Physics Technicians and Auxiliary Operators had been trained in the new procedures prior to the inspector's arrival onsite, but the training had not been documented. The inspector interviewed one Chemistry and Health Physics Technician to verify that the training session in the new procedures had occurred, and the Technician confirmed the fact.

On April 3, 1981, the inspector observed Chemistry and Health Physics Technicians inspecting 55-gallon drums for integrity as they were being loaded on a trailer for shipment to a disposal site.

No items of noncompliance were identified.

5. Shipments of Radioactive Waste

As noted in Item 2 above, the licensee made at least four shipments of licensed material to burial sites for disposal in 1980. It has been determined that these shipments were made in violation of the regulations inasmuch as the licensee had not implemented the required quality assurance program, but in addition, the inspector reviewed additional requirements of the regulations to determine if the licensee was in compliance with them. The inspector reviewed Certificate of Compliance No. 9086, Revision 5, dated November 17, 1980 for the HN-100-2 shipping cask. The inspector requested and reviewed copies of all documents referenced by the Certificate, as well as all referenced drawings. The inspector also noted that the licensee had registered as a user of the shipping cask.

No further items of noncompliance were identified.

6. Shipping Documentation

For the five shipments mentioned in Item 2 above, the inspector reviewed the shipping documentation required by 49 CFR 172.203. Specifically, the inspector verified, for each shipment, that the shipping documentation included the name of each radionuclide, a description of the physical and chemical form, the activity contained in each package, and the instructions for maintenance of sole use shipment controls.

No items of noncompliance were identified.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on April 3, 1981. The inspector summarized the purpose and the scope of the inspection, and the findings as presented in this report.