

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-271/85-03

Docket No. 50-271

License No. DPR-28 Priority - Category C

Licensee: Vermont Yankee Nuclear Power Corporation
R.D. 5, Box 169, Ferry Road
Brattleboro, Vermont 05301

Facility Name: Vermont Yankee Nuclear Power Station

Inspection At: Vernon, Vermont

Inspection Conducted: January 8-10, 1985

Inspector: W. J. Zibulsky Chemist 2/11/85
date

Approved by: W. J. Pasciak 2/11/85
W. J. Pasciak, Chief, BWR Radiation
Safety Section date

Inspection Summary: Inspection on January 8-10, 1985 (Report No. 50-271/85-03)

Areas Inspected: Routine, announced inspection of the licensee's nonradio-logical chemical program. Areas reviewed include: quality control of analytical measurements, analytical procedures, staffing, and training. The inspection involved 24 hours onsite by one region-based inspector.

Results: The licensee was in compliance with NRC requirements examined during the inspection.

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DETAILS

1. Individuals Contacted

*B. Leach, Chemistry and H.P. Supervisor
*M. Prystupa, Plant Chemist
*D. Reid, Operations Superintendent
J. Pelletier, Plant Manager
M. Fuller, Chemistry and H.P. Assistant

*Present at exit interview.

The inspector also interviewed other licensee employees including members of the Chemistry staff and Training staff.

2. Laboratory Quality Control

The adequacy and effectiveness of the licensee's nonradiological chemistry quality control program were determined by review of records, discussions with licensee personnel, and observations by the inspector.

For the analyses observed, calibration standards were used over the full range of operation.

Separate control standards were not used nor documented by the licensee for quality control. The inspector told the licensee that the utilization and documentation of control standards would add to the assurance that the measurement system and standards were correct. By plotting the control standards on charts with a ± 2 sigma or ± 3 sigma acceptance criteria, the laboratory personnel would be able to identify whether analytical differences were significant and whether trends were developing. The licensee stated that a measurement control program will be developed. The measurement control program will be reviewed at a subsequent inspection. Inspector Follow-up Item (85-03-01).

No violations were identified.

3. Analytical Procedures

The inspector reviewed the licensee's analytical procedures in the water chemistry area. The analytical procedures that were observed were titrimetric boron and chloride, and silica by spectrophotometry.

It was suggested that the licensee modify their procedure for chloride analysis (O.P. 630, Revision 6) to incorporate a spectrophotometric method because of its better sensitivity, resolution, and dependability over the mercuric nitrate titrimetric method that is currently used. The licensee will investigate this method. The other procedures used for water chemistry analyses were reviewed and found to be adequate.

No violations were identified.

4. Staffing and Training

The inspector reviewed the licensee's organization with respect to the staffing in the chemistry area. The Plant Chemist and Health Physicist report to the Chemistry and Health Physics Supervisor. The Chemistry and Health Physics Engineer reports to the Plant Chemist. The Chemistry and Health Physics Technicians report to the Chemistry and Health Physics Assistants who report to either the Plant Chemist or the Health Physicist.

There is good communication among the chemistry personnel and analytical problems in the laboratory are generally enacted upon without delay.

The inspector reviewed the training and qualification program for the Chemistry Technicians. Procedure D.P. 632 defines the qualification program and its sign-off sheet. The course lasts about 6 months with hands-on training. As the technician becomes proficient in a specific procedure or technique, a qualified chemist signs the sheet. The Chemistry Technician requalifies every 2 years. Annually, standards are analyzed by the Technicians and the results are evaluated and documented. The licensee will be including laboratory quality control in their training program.

No violations were identified.

5. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on January 10, 1985. The inspector summarized the purpose and scope of the inspection and the inspector findings. At no time during the inspection was any written material provided to the licensee by the inspector.