

DCS Nos. 821116
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Report No. 50-29/83-02

Docket No. 50-29

License No. DPR-3

Licensee: Yankee Atomic Electric Company Priority _____ Category C

1671 Worcester Road

Framingham, Massachusetts 01701

Facility Name: Yankee Nuclear Power Station

Inspection at: Rowe, Massachusetts

Inspection conducted: January 1 - February 7, 1983

Inspectors: *S. J. Collins*
S.J. Collins, Senior Resident Inspector

2/16/83
date signed

Approved by: *R. M. Gallo*
R.M. Gallo, Chief, Reactor Project
Section 1A

date signed
3/1/83
date signed

Inspection Summary:

Inspection on: January 1 - February 7, 1983

Areas Inspected: Routine, on-site regular and backshift inspection by the resident inspector (145 hours). Areas inspected included actions on previous inspection items; operational safety verification reviews; plant maintenance observations; plant surveillance observation; review of events requiring one hour notification to the NRC; inspector review of plant events; review of Licensee Events Reports; IE Bulletin follow-up; observation of transportation activities; and Plant Operation Review Committee activities reviews.

Violations: No violations were identified.

DETAILS

1. Persons Contacted Plant Operations

- * H. Autio, Plant Superintendent
- E. Begiebing, Maintenance Supervisor
- W. Billings, Chemistry Manager
- * R. Boutwell, Technical Services Supervisor
- E. Chatfield, Training Manager
- * B. Drawbridge, Technical Director
- * L. French, Plant Engineer
- T. Henderson, Reactor Engineering Manager
- X. Jurentkuff, Assistant Plant Operations Manager
- P. Laird, Plant Maintenance Manager
- R. Mitchell, Instrument and Control Supervisor
- R. Sedgwick, Security Supervisor
- * N. St. Laurent, Assistant Plant Superintendent
- J. Trejo, Radiation Protection Manager
- D. Vassar, Plant Operations Manager

The inspector also interviewed other licensee employees during the inspection, including members of the Operations, Health Physics, Instrument and Control, Maintenance, Reactor Engineering, Security and General Office Staffs.

Quality Assurance

L. Reed, Operational Quality Assurance Coordinator

Yankee Atomic Electric Company

R. Berry, Assistant to V.P. of Operations

*Denotes those present at exit interview on February 16, 1983

2. Licensee Action on Previous Inspection Findings

- a. (closed) Inspector Follow-up Item (79-08-05): Review ventilation system operation. The inspector verified that the chemistry laboratory radioactive materials hood was being ventilated. This item is closed.
- b. (closed) Inspector Follow-up Item (81-L0-30): Primary Vent Stack (PVS) failure due to dryers inoperable. This Licensee Event Report (LER) 81-30/3L topic is now being tracked as an unresolved item, see paragraph 7.B. of this report. This item is closed.
- c. (closed) Inspector Follow-up Item (81-21-04): Follow licensee corrective action on PVS monitor failure. This item is now being tracked as an unresolved item, see paragraph 7.B. of this report. This item is closed.
- d. (closed) Inspector Follow-up Item (81-27-03): Primary Vent Stack monitor failure. This item is now being tracked as an unresolved item, see paragraph 7.B. of this report. This item is closed.
- e. (closed) Inspector Follow-up Item (82-L0-01): Relays failed to drop when energized. This Licensee Event Report 82-01/3L is cleared based on a review documented in Inspection Report (IR) 50-29/82-03, section 5.b. This item is closed.

3. Operational Safety Verification Reviews

A. Daily Inspection

1. Control room (CR) observations were conducted to:

- Verify proper control room manning and access control.
- Verify adherence to approved procedures for activities in progress.
- Verify adherence to limiting condition for operation (LCOs) requirements, if applicable.
- Observe instrumentation and recorder traces important to safety for abnormalities.
- Review status of selected CR annunciators with CR operator(s) and verify appropriate actions initiated and completed in a timely manner.
- Review operability of reactor protection system (RPS) instruments and channels.
- Review stack monitor recorder traces and follow-up on any abnormal indication.
- Verify that required on-site and off-site emergency power sources are available for automatic operation.

2. Control room documents were reviewed including the Shift Supervisor(s) and CR operators logs, tagout log, and operating orders log to denote operating trends and activities and to note any out-of-service safety system. The licensee's jumper/bypass log was reviewed to verify that there are no conflicts with Technical Specifications (TS) and that corrective actions and control procedures have been implemented. These checks were performed on the following dates: 1/3, 1/4, 1/5, 1/7, 1/10, 1/12, 1/14, 1/17, 1/18, 1/19, 1/20, 1/21, 1/24, 1/26, 1/28, 1/30, 1/31, 2/1, 2/3, 2/4, 2/6, and 2/7.

No inadequacies were identified.

B. Weekly System Alignment Inspection

Operating confirmation was made of selected piping system trains. Accessible valve positions in the flow path were verified correct. Proper power supply and breaker alignment was verified. Visual inspections of major components were performed. Operability of instruments essential to system performance was verified. The following systems were checked:

- The inspector verified the emergency boiler feed lineup to the steam generators (SG) as being available in the standby status and observed operator verification of a flowpath via the bottom blow lines using the electric emergency boiler feed pumps on January 19, 1983.
- Diesel Generator (DG) unit standby status verified during tour of DG cubicles, performed on January 26, 1983.
- Steam driven emergency boiler feed pump standby status verified during tour of Auxiliary Boiler Room and Demineralized Water Storage Tank area on January 28, 1983.

No inadequacies were identified.

C. Biweekly Inspections

1. Safety-related tagouts were independently examined by the inspector to verify that the valve, breaker or switch was correctly positioned, that the tag was properly attached to the correct component, that the licensee's procedure, AP-0017, Switching and Tagging of Plant Equipment, was adhered to, and that equipment removed from service conformed to TS LCO requirements.
 - Switching/Tagging Order 8300012, dated January 4, 1983 to open and white tag ACBs for PR-MOV 560, 561, 558 and 559 (Pressurizer and Reactor Vessel head vent line isolations).

- Switching/Tagging Order 8300091, dated January 23, 1983 to open and white tag SI-MOV 22, 23, 24, and 25 (Safety Injection, SI, Header Isolations to Cold Legs, required open per TS 4.5.2.b.2).

No inadequacies were identified.

2. The licensee's sampling program was reviewed by monitoring results of liquid and gaseous analysis results for primary coolant samples, boric acid tank samples, plant liquid and gaseous effluents and routine systems analysis as noted below:

- Primary coolant sample results for boron concentrations and I^{131} concentrations on 1/2/83, 1/14/83, and 1/31/83.
- Boric Acid Mix Tank (BAMT) weekly sample results for boron concentration and level for 1/3/83, 1/12/83, and 1/26/83.

Except for the following the inspector had no further questions.

The licensee is monitoring chemistry for indications of fuel defects. A higher than normal level of iodine-131 (I-131) in the primary coolant has existed during Cycle XVI operations. The licensee's chemistry department performed an in-house study of primary chemistry trends which details plant operating and chemistry analysis results over the previous cycles. During Cycle XVI the primary coolant iodine-131 level has increased from a value of 3.8×10^{-3} uCi/ml on December 16, 1982 (initial cycle XVI on-line operation) to 3.84×10^{-2} uCi/ml on February 3, 1983. The I-131 level has stabilized since January 25, 1983 and currently represents approximately 15.0% of allowable TS limits. The inspector determined that licensee actions in this area were aggressive and a timely evaluation was performed. The licensee is tending primary coolant chemistry; and preparations for potential mid cycle fuel sipping operations have been initiated. The inspector will continue to review licensee actions.

3. Shift turnovers were observed on the following dates to verify conformance with licensee procedures: 1/4, 1/17, 1/20, and 1/24.

No inadequacies were identified.

4. Accessible facility areas were toured to make an independent assessment of equipment conditions. On a sampling basis the following items were observed or verified:

- a. General plant/equipment conditions, including operability of standby equipment.
- b. Plant areas monitored for fire hazards and fire fighting equipment controls.
- c. Control of ignition sources and flammable materials.

- d. Control of activities in progress to verify conformance with licensee controls.
- e. Radiation controls properly established by observing that the licensee's radiological protection policies/procedures are being followed. The activities noted below were observed:
 - MR 83-64, No. 1 Charging Pump, High Pressure (H.P.) Stuffing Box Flange Leak
 - MR 83-83, No. 1 Charging Pump, No. 3 Cylinder Head Gasket Leak
 - Portions of the following licensee conducted area surveys were observed and readings independently verified by the inspector:
 - Survey of Vapor Container (V.C.) and reactor head area conducted on January 19, 1983.
 - The following activities were observed to verify compliance with established radiation work permit (RWP) requirements:
 - RWP 40, January 15, 1983, Vapor Container (V.C.) Inspection was reviewed for completeness and exposure record.
 - RWP 45, January 19, 1983, V.C. entry, reactor head, and pressurizer head area inspections.
 - Radiation protection instruments in use were examined on a sampling basis to verify operability and adherence to calibration frequency as noted below:
 - Primary Auxiliary Building (PAB) cubicle area portable instrument on January 17, 1983.
 - Instruments used for January 19, 1983 V.C. entry per RWP No. 45.
- f. Security activities were reviewed on a sampling basis to verify:
 - Proper manning and capability to perform assigned functions.
 - Persons and packages are checked before entry into the protected area (PA) is permitted.
 - Vehicles are properly authorized, searched and controlled within the PA.
 - Personnel badging, escorting and entry into vital areas (VA) is controlled.
 - Proper compensatory measures are employed when required and are effective.

- Licensee security response is consistent with approved procedures and physical security plan.

Inspector tours during the report period included the following areas: Control room, turbine building, auxiliary boiler room, switchgear room, Nonreturn Valve (NRV) house, Primary Vent Stack (PVS) house, screenwell house, spent fuel pit, primary auxiliary building (PAB), safety injection (SI) building, pump and heat exchanger cubicles, radwaste handling complex and vapor container (VC).

5. Plant Information Reports (PIRs) prepared by the licensee per AP-0004 were reviewed. The inspector determined whether the conditions were reportable as defined in the Licensee Event Reports reporting requirements section of the TS and that the licensee's system of problem identification and corrective action is being effectively utilized. The following PIRs were reviewed.

<u>PIR No.</u>	<u>Occurrence Date</u>	<u>Report Date</u>	<u>Subject</u>
82-20	11/20/82	12/20/82	Accidental release of Spent Fuel Pit Manipulator Crane Boom with dummy assembly attached
82-22	12/11/82 (K-6) 12/13/82 (A-5)	01/10/83	Incore Instrumentation Thimble K-6 and A-5 Leak

Except for the following the inspector had no further comments:

PIR 82-22 followup actions are discussed in inspection report 50-29/82-15, section 6.B.2.

6. Containment isolation lineup was verified on a sampling basis by reviewing the status of the following portions of the containment isolation system (CIS).
 - During daily control room observations the status of valves noted on the CIS control cabinet were monitored. Additionally, the status of shutdown cooling valves SC-MOV-551, -552, -553 and -554 were verified to be in accordance with TS table 3.6-1 requirements and disabled in the closed position by tagging order 83-86 on February 7, 1983.

4. Monthly Maintenance Observation

- A. The inspector monitored portions of activities noted below to ascertain that maintenance of safety-related systems and components is being conducted per approved procedures, TS and appropriate codes and standards.

Portions of selected safety-related maintenance activities were observed and records were reviewed to determine the following as applicable:

- Activities were not violating TS LCOs.
- Redundant components were operable.
- Required approvals and tagouts were obtained.
- Approved procedures were used or the activity was within the "skills-of-the-trade".
- Adequate procedures were utilized.
- Qualified personnel utilized.
- Replacement parts and materials were certified.
- Radiological controls were proper.
- Fire prevention controls were appropriate.
- Quality Control (QC) hold points were established where required and observed.
- Equipment "return-to-service" was proper.

The following activities were reviewed:

- MR 83-07, January 04, 1983, Feedwater Control Block Leaks.
- MR 83-64, January 16, 1983, No. 1 Charging Pump High Pressure (HP) Stuffing Box Flange Leak.
- MR 83-84, January 19, 1983, Emergency Boiler Feed Pump Discharge Line Frozen.

Except for the following the inspector had no further questions.

MR 83-7 documents known leakage from feedwater control valve FCV-FW-1300 body threaded tap hole. A temporary patch has been used in an attempt to minimize system leakage. The licensee plans no permanent repair while unit operation continues.

MR 83-84 documents a frozen emergency boiler feed (EBF) line found at the Primary Auxiliary Building (PAB) wall due to insulation degradation and colder than normal temperatures. The alternate emergency feed path was verified by licensee operators and the blockage removed. Insulation has been added to the line penetrations

at the PAB and similar lines inspected. The inspector verified compliance with TS section 3.7.1.2. requirements. No inadequacies were identified.

- B. A review of outstanding maintenance requests (MRs) was conducted to determine that priority is being given to safety-related maintenance and a backlog is not developing on a given system.

The following series of MRs were reviewed:

- MR 83-1, January 3, 1983 through MR 83-158, February 7, 1983.

Of the 158 total MRs written during this period, 38 were categorized as Safety-Related by the licensee, 21 of these remain open in the MR Log index. A review indicated that three areas accounted for 16 MRs:

- | | |
|---|-------|
| - Fire Protection/Detection Systems | 6 MRs |
| - Charging System Pumps/Valves | 6 MRs |
| - Primary Vent Stack Radiation Monitors | 4 MRs |

No inadequacies were identified.

5. Monthly Surveillance Observation

- A. The inspector reviewed all aspects of surveillance testing involving safety-related systems or components to verify conformance with licensee requirements.

Surveillance test activities were observed by the inspector and records were reviewed to determine:

- Conformance to TS requirements.
- Required approvals and tagouts were obtained.
- Qualified personnel and approved procedures utilized.
- Test instrumentation calibration was proper.
- LCOs were met.
- Test data was accurate and complete. Independent verification performed by the inspector if appropriate.
- Independent verification of system return-to-service.
- Test frequency proper.

The following activities were reviewed:

- Vapor Container (V.C.) Personnel Hatch Leak Test, conducted on January 19, 1983 per OP-4716, and TS 3.6.1.3 requirements.

No inadequacies were identified.

- B. The inspector witnessed portions of the following surveillance test activities involving safety-related systems.

Observations and reviews of records were conducted to determine:

- Conformance with TS.
- Required approvals and tagouts obtained.
- Qualified personnel and approved procedures utilized.
- Test instrument calibration was proper.
- LCOs were met.
- Test data complete, accurate and independently verified if appropriate.
- Proper "return-to-service" independently verified.
- Test results meet TS requirements and discrepancies rectified.
- Test frequency proper.

The following activity was reviewed.

- MR 83-84 retest per OP-4211, Motor Driven Feedwater Pump Operability Test, conducted following the removal of emergency feedwater line blockage on January 19, 1983.

No inadequacies were identified.

6. Review of Events Requiring One Hour Notification to the NRC

The circumstances surrounding the following events requiring prompt NRC (one hour) notification via the dedicated (ENS-line) were reviewed. A summary of the inspectors review findings follows or is documented elsewhere as noted below:

- During full allowable power operation (185.5 MWe) on January 15, 1983 the licensee received indications of an excessive valve stem leakoff rate from within the Vapor Container (V.C.). At 10:45 a.m. a V.C. entry was made in an attempt to locate the source and isolate the stem leakoff. The NRC was notified via the ENS-line at 11:00 a.m. At 3:10 p.m. a load reduction was started and at 8:30 p.m. the turbine was manually tripped with the reactor remaining critical. The NRC was updated on plant conditions at 9:05 p.m. via the ENS-line. The licensee performed OP-4200, Main Coolant System Leak Check and completed V.C. operations by 11:15 p.m. During this operation several valve packing glands were found with excessive leakoff and were adjusted. Plant start-up for Hot Standby commenced at 11:30 p.m. per OP-2101 and the NRC was notified via the ENS-line at 11:40 p.m. The plant returned to full allowable power (575.1 MWt) at 12:40 a.m. on January 16, 1983.

- On January 19, 1983 a reactor trip occurred from full allowed reactor power (185.5 MWe) at 1:45 a.m. The NRC was notified via the ENS-line at 2:40 a.m. pursuant to 10 CFR 50.72 reporting requirements. Circumstances surrounding this event are described in section 7.A. of this report.
- On January 20, 1983 a reactor trip occurred at 12:54 a.m. during power escalation (approximately 20% reactor power). The trip was caused by low main coolant system pressure resulting from over boration of the primary coolant. The NRC was notified via the ENS-line at 1:45 a.m. Circumstances surrounding this event are described in section 7.A. of this report.

No inadequacies were identified.

7. Inspector Review of Plant Events

A. Cycle XVI Plant Operations

At the beginning of the inspection period (January 1, 1983) the reactor plant was in Mode 1, Power Operation, operating at full allowable reactor power (176.2 MWe output). Power escalation was in progress with allowable reactor power increases limited by TS Table 3.2-1. Inspector observations and follow-up on plant operational activities is noted below:

- Plant power reduction to Mode 2. On January 15, 1983 the licensee conducted a power reduction to Mode 2 (Startup, less than 2% reactor power) to investigate the source of an indicated excessive stem leak-off rate from within the Vapor Container (V.C.). This event is discussed in section 6. of this report. The plant returned to full allowable power on January 16, 1983.
- On January 19, 1983 at 12:55 a.m. during allowable full power operation (185.5 MWe output) an apparent off-site high voltage line disturbance resulted in TC-110 and -116 panelalarms for Inverter No. 1 and 2 trouble, in addition to Turbine Generator (T.G.) unit alarms and a Z-126 line fault indication (one of two required independent off-site transmission networks). During the licensee's investigation of the alarms received, the status of Vital Bus 1 and 2 instrument power supplies was reviewed. The common alarm received (Inverter Trouble) requires the operator to review the equipment local alarms located in the switchgear room. During the operator's follow-up the ground fault detection equipment test switch was depressed in an attempt to locate the source of No. 1 Inverter trouble. A fault in the ground detection circuit resulted in a spike on Vital Bus No. 1 Circuit distributions which tripped the main coolant loop low flow protection system (2 out of 4 trip logic) causing a reactor scram at 1:45 a.m. Apparently, one trip signal was due to No. 2 loop flow bistable drift (bistable previously intentionally tripped), the second trip signal was caused by the circuit spike. During plant recovery operations the licensee noted that the normal flow path for the electric Emergency Boiler Feed Pumps (EBF) was blocked and a frozen line was suspected. Per TS section 3.7.1.2. the licensee

verified an alternate EBF flow path available and issued MR 83-84 to correct the line blockage. During this period Nuclear instrumentation (N.I.) and Reactor Protection System (R.P.S.) testing confirmed proper system operation, No. 2 loop flow instrumentation was returned to service, erratic operation of the Primary Vent Stack (P.V.S.) radiation monitors was investigated and the V.C. personnel hatch type 'B' test (OP-4702) was conducted and failed the acceptance criteria. The P.V.S. monitors were returned to service at 8:45 a.m. and OP-4702 was completed satisfactorily at 6:06 p.m. The licensee intends to utilize vendor support to locate the cause of the inverter ground detection system fault and will issue a Plant Information Report, per AP-0004 to document their review of this event.

As a temporary fix the licensee disconnected the inverter ground detection system test switch utilizing Bypass of Safety Function and Jumper Control Request No. 83-20. Inspector follow-up of the licensee's corrective actions in this area will be documented in a subsequent inspection (Follow Item 50-29/83-02-01).

Reactor startup commenced at 6:10 p.m. and the plant was in Mode 1 at 8:45 p.m., January 19, 1983.

- On January 20, 1983 at 12:54 a.m. during power escalation operations a reactor trip occurred due to main coolant system low pressure protection. While compensating for xenon burnup an overboration of the primary coolant system resulted in a rapid reactor coolant system (R.C.S.) pressure decrease from approximately 20 percent reactor power. The licensee intends to document their review of this event in a Plant Information Report per AP 0004.

Repeated P.V.S. monitor failures occurred and temporary monitoring measures were utilized by the licensee. The reactor was again critical at 6:59 a.m. on January 20, 1983. During power escalation at 1:45 p.m. the normal EBF pump flow path was verified operable and additional freeze protection measures were instituted. At 11:15 p.m. the reactor was at full allowable power of 178.1 MWe and 575.1 MWt.

- Reactor operation at full allowable power continued during the remainder of the inspection period. The licensee continued to experience erratic P.V.S. monitor operation during the inspection period, inspector follow-up in this area is documented below.

B. Primary Vent Stack (P.V.S.) Radiation Monitor Actions

During the inspection period the licensee continued to experience operational problems with the P.V.S. radiation monitors. Yankee Nuclear Power Station TS Table 3.3.4 requires that the monitors (1- particulate, 1- iodine and 1- noble gas) be operable at all times or all planned releases, and releases from the evaporator to the atmosphere through the primary vent stack be suspended.

During the Systematic Assessment of Licensee Performance (SALP) conducted for the period of July 1, 1981 to June 30, 1982, the NRC requested the licensee to provide long-term corrective action to prevent recurrence of these failures. The licensee proposed two modifications to the system to be completed by March 1, 1983. These modifications are detailed in Plant Design Change Request (PDCR) 81-11, Primary Vent Stack Radiation Monitoring Sample Line Modification. PDCR 81-11 currently has been reviewed by Plant Operations Review Committee (PORC) Meeting No. 83-06 on January 2, 1983. Implementation of the PDCR is pending Yankee Atomic Electric Company (YAEC) Manager of Operations approval.

Review of this item is ongoing. NRC concerns are considered unresolved pending licensee completion of commitments detailed in Letter FYR 82-99 dated October 8, 1982 and demonstration that corrective actions are effective (Unresolved Item UNR 50-29/83-02-02).

8. Review of Licensee Event Reports (LERs)

- A. LERs submitted to NRC:RI were reviewed to verify that the details were clearly reported, including accuracy of the description of cause and adequacy of corrective action. The inspector determined whether further information was required from the licensee, whether generic implications were indicated, and whether the event warranted on-site follow-up. The following LERs were reviewed.

<u>LER No.</u>	<u>Date of Event</u>	<u>Date of Report</u>	<u>Subject</u>
* 50-29/82-41-03L	11/16/82	12/16/82	No. 1 Main Coolant Loop Pressure Channel Low Pressure Safety Injection Initiation Setpoint Out of Tolerance.
* 50-29/82-42-03L	11/17/82	12/17/82	No. 2 Main Coolant Loop Pressure Scram Setpoint Out of Tolerance.
50-29/82-43-03L	12/09/82	01/07/83	Inoperable Containment Isolation Valve, AS-V-719.
50-29/82-44-03L	12/08/82	01/07/83	Deluge System and Turbine Building Column Spray System Out of Service.

Except as noted in section B. below the inspector had no further questions.

- B. For the LERs selected for on-site review (denoted by asterisks above), the inspector verified that appropriate corrective action was taken

or responsibility assigned and that continued operation of the facility was conducted in accordance with TS and did not constitute an unreviewed safety question as defined in 10 CFR 50.59. Report accuracy, compliance with current reporting requirements and applicability to other site systems and components were also reviewed.

A summary of the inspectors review findings follows:

1. 50-29/82-41, No. 1 Main Coolant Loop Pressure Channel Low Pressure Safety Injection Initiation Setpoint Out of Tolerance. On November 10, 1982 while in Mode 6 (Refueling) and during performance of an 18 month interval surveillance the No. 1 Main Coolant Loop channel bistable output relay pickup (energize) setpoint for low pressure (LP) safety injection (SI) initiation was found to be out of OP-4628 specified limits (energize $1735 \pm 10 - 0$ psig); and, Yankee NPS Technical Specification Table 3.3-3 limits (actuation RPS Low Main Coolant Pressure Channel, trip setpoint greater than or equal to 1700 psig). The OP-4628 (Main Coolant System Pressure Channel Calibration) procedural setpoint band of 1735 - 1745 psig is based on TS requirements of greater than or equal to 1700 psig plus 50 psig margin for error, drift and Acceptance Criteria tolerance, minus a 5 psig bias to account for transmitter location (several feet above the pressurizer normal water level). The as found input pressure to trip was recorded as 1680 psig. Discussions with licensee Instrument and Control (I&C) department personnel indicated that previous monthly functional checks performed per OP-4659, Main Coolant System Pressure Channels Functional Test, resulted in minor adjustments to the Main Coolant Loop No. 1 Pressure safety injection (SI) initiation setpoint when the bistable pickup setpoint was compared to the indicated pressure on the Main Coolant Board (MCB). The results of these monthly adjustments were additive and it was subsequently discovered that the MCB pressure indicator for Loop 1 was not indicating properly; thus the SI setpoint for Loop 1 was set using an inaccurate pressure readout as the reference main coolant system pressure. Licensee corrective action includes a revision to OP-4659 requiring that the loop pressure instrument transmitter be used for an indication of pressure during system functional testing and that it be compared with MCB indication to verify the accuracy of the meter readout. The licensee reported that two redundant SI initiation sources were available and within limits.

The above constitutes a violation of Yankee TS Table 3.3-2 which requires all SI channels and sensors to be operable during modes 1, 2 and 3 or the reactor be in at least hot standby within 6 hours and in cold shutdown within the following 30 hours. This item meets the criteria of NRC Enforcement Policy, 10 CFR 2, Appendix C, 47 FR 9987 (March 9, 1982), section IV.A. for a licensee identified item and a notice of violation will not be issued, in that: the item was identified by the Licensee, reported pursuant to TS, section 6.9.4. criteria, it constitutes a Violation at Level IV (supplement I.D.); it was not an item that the licensee could reasonably be expected to prevent by corrective action from a previous violation, and the item will be corrected including measures to prevent recurrence.

The inspector attended PORC meeting No. 83-01 conducted on January 6, 1983 during which OP-4659, Revision 4 was reviewed and approved incorporating the corrective actions of LER 82-41-03L. The inspector reviewed the completed data package from OP-4659, Revision 4 performed on February 3, 1983 and noted that protective function setpoints "as found" were all within procedure tolerance. The licensee continues to experience slight control board meter pressure indication drift. The drift is slight, less than 50 psig per month, and not significant operationally, in that the loop pressure meters readout in 50 psig minimum increments. The licensee is monitoring MCB loop pressure meter performance to determine if corrective actions are required.

This LER remains open pending resolution of the following:

- The cover letter of LER 50-29/82-41-03L indicates that the report was submitted pursuant to TS section 6.9.6.b which applies to Special Reports concerning ECCS Actuation. The licensee should provide reference to the applicable TS section requiring report, including reference to the specific requirement per NUREG-0161.
- LER 82-41-03L states that two redundant SI initiation sources were available and within limits. The licensee was requested to provide the basis for this statement since one of two low pressure SI setpoints was out of tolerance and the remaining SI initiation signal was based on a containment high pressure condition.

These items will be reviewed during a subsequent inspection (Follow Item 50-29/83-02-03).

2. 50-29/82-42, No. 2 Main Coolant Loop Pressure Channel Low Pressure Scram Setpoint Out of Tolerance. While in Mode 6 (Refueling), during performance of OP-4628, Main Coolant System Pressure Channel Calibration (an 18 month interval surveillance) on November 17, 1983, the No. 2 Main Coolant Loop Low Pressure (LP) scram setpoint was found to be out of the TS Table 2.2.1 trip setpoint limit of greater than or equal to 1800 psig. The as found setpoint was 55 psig lower than the minimum TS value.

The cause of this event is similar to that reported in LER 50-29/82-14, in that performance of the monthly system functional checks per OP-4659 resulted in low pressure scram bistable stepoint adjustments based on an inaccurate main control board loop pressure instrument readout.

TS Table 3.3-1, Reactor Protective System Instrumentation, notes that three channels of Low Main Coolant System Pressure protection are normally available and a 2 out of 3 logic is required to trip the reactor. The table also requires that a minimum of three channels remain operable in Modes 1 and 2. The applicable Table Action Statement notes that power operation may continue with one less than the minimum channels operable provided the inoperable channel is placed in the tripped condition within one hour.

This item meets the criteria of NRC Enforcement Policy, 10 CFR 2, Appendix C, 47 FR 9987 (March 9, 1982), section IV.A. for a licensee identified item and a notice of violation will not be issued, in that: the item was identified by the licensee, reported pursuant to TS, section 6.9.4. criteria, it constitutes a Violation at Level IV (supplement I.D.); it was not an item that the licensee could reasonably be expected to prevent by corrective action from a previous violation, and the item will be corrected including measures to prevent recurrence within a reasonable length of time.

As noted in section 8.B.1. above, OP-4659 has been revised to use the milliamper value of the transmitter in lieu of the main coolant board pressure indicator for calibration. This LER is closed.

9. IE Bulletin Follow-up

A. For the IE Bulletin (IEB) listed below the inspector ascertained whether the following actions taken by the licensee met Bulletin requirements and licensee commitments: Written response was within the period stated in the Bulletin, includes the information required to be reported, includes adequate corrective action commitments based on information presented in the Bulletin and licensee's response; verified licensee management forwarded copies of the written response to appropriate on-site management representatives, that information discussed in the licensee's written response was accurate, and corrective action taken by the licensee was as described in the written response.

- IEB 82-04, Deficiencies in Primary Containment Electrical Penetration Assemblies, dated December 3, 1982.

The inspector reviewed the licensee's response FYR 83-10, dated January 13, 1983. The inspector determined the response was adequate in that the licensee determined that no Bunker Ramo electrical penetrations addressed in IEB 82-04 are installed or planned to be installed in safety-related systems at Yankee Nuclear Power Station.

No inadequacies were identified.

10. Transportation Activities

The inspector witnessed preparations for shipment of Off-site Radioactive Material Shipment No. 83-03. Activities observed included loading of Low Specific Activity (LSA) containers and survey of Exclusive Use Vehicle by licensee representative. The shipment contained 1.278 curies of compacted and non-compacted solid low-level waste packaged in eleven wooden boxes which were shipped to U.S. Ecology Inc. of Richland, WA.

The inspector reviewed the licensee's records pertaining to Shipment No. 83-03 and verified that trailer and cab surveys were complete per the requirements of OP-8301, Radioactive Material Shipment.

No inadequacies were identified.

11. Plant Operation Review Committee (PORC)

On the following dates the inspector observed a meeting of the Yankee NPS PORC to ascertain that the provisions of TS 6.5.1 were met.

- January 5, 1983, PORC Meeting 83-01.
- January 24, 1983, PORC Meeting 83-05.

No inadequacies were identified.

12. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable. An unresolved item is discussed in section 7.B. of this report.

13. Management Meetings

During the inspection period the following management meetings were conducted or attended by the inspector as noted below:

- The inspector attended an exit meeting on January 20, 1983, conducted by region-based specialists at the conclusion of IR 50-29/83-01, Security and Safeguards reviews.
- At periodic intervals during the course of the inspection, meetings were held with senior facility management to discuss the inspection scope and preliminary findings of the resident inspector. A summary of findings was also provided to the licensee on February 16, 1983.