J.S. NUCLEAR REGULATORY COMMISSION REGION I

Report No.	92-12	
Docket No.	50-271	
Licensee No.	DPR-28	
Licensee:	Vermont Yankee Nuclear Power Corporation RD 5, Box 169 Ferry Road Brattleboro, VT 05301	
Facility:	Vermont Yankee Nuclear Power Station Vernon, Vermont	
Inspection Period:	May 27, 1992 - July 6, 1992	
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Inspection Summary: Station activities inspected by the resident staff this period included: plant operations, radiological controls, maintenance and surveillance, emergency preparedness, security, engineering and technical support, and safety assessment and quality verification. An initiative selected for inspection was a review of the local leak rate testing activities. Periodic backshift and holiday inspections were performed.

Principals Contacted: Interviews and discussions were conducted with members of Vermont Yankee management and staff as necessary to support this inspection.

Results: Summarized in the Executive Summary.

EXECUTIVE SUMMARY Vermont Yankee Nuclear Power Station Report No. 50-271/92-12

Plant Operations

The plant was operated safely during the inspection period. Three operational failures of the "A" emergency diesel generator required extensive corrective maintenance to repair two similar component failures and one non-related failure. Two separate temporary waivers of compliance were granted to allow continued plant operation during this maintenance. Issues were identified that reflected concerns in the area of configuration control. A training weakness associated with the rotating uninterruptible power supplies was identified.

Radiological Controls

Enforcement discretion was exercised for an event involving two contractors failing to follow radiation work permit requirements. Although this particular event represented a lapse from good radiological practices, the specific conditions of this event were of minor safety significance.

Maintenance and Surveillance

Good corrective actions and management involvement were observed to restore the "A" emergency diesel generator to an operable status on three separate occasions. Efforts to understand the recent diesel component failures, improve diesel reliability and performance, and enhance the diesel maintenance program are continuing. The surveillance procedure used for the standby gas treatment system's filter was not adequate to assure the timely performance of a technical specification requirement; enforcement discretion was exercised. In general, surveillances observed were well controlled and verified the operability of tested components.

Emergency Preparedness

Excellent coordination was observed during a medical response drill and a mini-drill involving the Technical and Operations Support Centers. State-of-the-art communications equipment was acquired to improve offsite response capability. An Unusual Event-Terminated emergency declaration involving an engineered safety system actuation occurred of June 27. NRC review determined that Vermont Yankee's Emergency Plan was effectively implemented.

Security

Effective coordination with local law enforcement and prompt plant response to a potential bomb threat were observed. Good security compensatory actions were implemented on three occasions to support plant maintenance. An NRC licensed (inactive) operator, who performed no licensed duties, tested positive for a controlled substance.

(EXECUTIVE SUMMARY CONTINUED)

Engineering and Technical Support

An unresolved item was identified to review aspects of the Vermont Yankee local leak rate testing program with emphasis on the criteria for the selection of valves and the implementation of a testing exemption. The analysis and resolution of a generic issue associated with diesel generator after cooling systems were good. Good backshift engineering support for assessment of off-normal equipment performance was noted.

Safety Assessment and Quality Verification

The members of the Nuclear Safety Audit and Review Committee were responsive to potential safety concerns, independently evaluated activities affecting plant safety, and met regulatory requirements. Plant Operations Review Committee and Maintenance Department reviews for the "A" emergency diesel generator issues were probing and reflected good safety perspectives. Numerous improvements in the Vermont Yankee Quality Assurance program were noted. A review of the Employee Safety Concerns program identified a weakness regarding personnel understanding of the process. Overall, the program was very effective.

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Note: Procedures from NRC Inspection Manual Chapter 2515, "Operating Reactor Inspection Program" which were used as inspection guidance are parenthetically listed for each applicable report section.

DETAILS

1.0 SUMMARY OF FACILITY ACTIVITIES

Vermont Yankee Nuclear Power Station (VY) operated at full rated power throughout this inspection period except for a brief power reduction on June 14. For approximately eight hours, reactor power was 40 percent of rated power to support a control rod sequence change from A2 to B2, calibration of the feedwater heater level control system, replacement of motor generator set brushes for both reactor recirculation pumps, and maintenance in the turbine building heater bay. The power change and maintenance activities were well controlled and planned.

Extensive maintenance was performed on the "A" emergency diesel generator (EDG) this period. On two of three occasions, the technical specification (TS) limiting condition for operation (LCO) was entered to correct the leakage of combustion exhaust gases into the jacket cooling system. These activities required extensive corrective maintenance to repair cracked cylinder liners and exhaustive post-maintenance testing to assure operability. As a result, VY requested and was granted a temporary waiver of compliance for each of these occurrences on June 3 and June 29. The waivers permitted reactor operation for an additional 24 and 48 hours respectively beyond the seven day limiting condition for operation (LCO) of Technical Specification (TS) 3.5.H.1. On the third occasion, the diesel was declared inoperable due to an unrelated service water valve failure.

On June 27, VY declared an Unusual Event (UE) - Terminated. This condition resulted from the identification by the operating crew that for a 40-minute period both the "A" EDG and the "1A" uninterruptible power supply were inoperable and a 24-hour TS plant shutdown requirement existed.

2.0 PLANT OPERATIONS (71707, 93702, 90712, 92701,, 62703)

2.1 Operational Safety Verification

This inspection consisted of selected observation of facility activities, plant tours, operability reviews of engineered safety feature systems, and attendance at periodic planning meetings. Control room reviews consisted of verification of staffing, procedural adherence, operator response to alarms and operational changes, and the control of TS limiting conditions for operation. Onshift training for licensed operators was conducted in accordance with management expectations and regulatory requirements. Component switching and tagging assured plant and personnel safety. Plant operations were well controlled and contributed to safe and proper operation of the facility.

2.2 Recirculation Pump Speed Control

On June 7, 9, and 10 control room operators questioned the speed stability of the "A" recirculation pump. Operators observed that at approximately 92 to 94 percent of rated, pump speed would ramp without operator input. Fluctuations in reactor power of approximately 4 MWt and changes in recirculation pump power were observed. A work order was initiated and corrective maintenance was performed.

According to plant personnel, variations in reactor recirculation pump speed control have been previously experienced. The inspector reviewed 20 pre-1988 work orders associated with speed oscillations and erratic performance of both recirculation pumps. During 4988, VY replaced the speed controllers with an improved design. Following this improvement, the inspector identified an additional seven post-1988 work orders associated with erratic speed control. The inspector noted that of the documents reviewed there was no common root cause for the many cases of instability. As a result of the three occurrences in June, VY plant engineering personnel were tasked to determine a root cause. The result of this effort was not completed at the end of the inspection period.

The inspector observed that control room operators were sensitive to operating near the TS core thermal power limit with "erratic" recirculation pump speed control. At times, operators continually monitored recirculation pump performance and some operators were misinformed that control room temperature affected pump speed. The effect of control room temperature on recirculation pump speed control was reviewed during two Plant Operations Review Committee (PORC) meetings and discounted as a root cause. Vermont Yankee considers the current operation of the recirculation speed control system as satisfactory, and that the speed fluctuations observed are within specification for the system. As for the variations in system performance around 92 to 94 percent speed, the Instrument and Control (I&C) Department indicated that the system is less stable in this region and will continue to perform in the noted manner.

The inspector discussed the performance of the recirculation pump speed control system with the I&C Manager and the Operations Manager, reviewed the performance characteristics of the system, observed operator actions to ramping recirculation speed control, and concluded that the speed variations experienced have not affected the safe and proper operation of the plant. The ramp rate and magnitude were well controlled by the operators and resulted in final reactor power conditions significantly below reactor power thermal limits. The inspector concluded that there has been adequate effort to perform maintenance to correct conditions adverse to stable system operation, and to trend system parameters.

2.3 Inconsistencies with Component Configurations

As a result of the inspector's review of VY's local leak rate testing (LLRT) documented in Section 7.2, inconsistencies were noted in the administrative control of the plant configuration. In some cases, component configuration as described within the Final Safety Analysis Report (FSAR) and plant drawings were not consistent with actual plant conditions. This included: (1) the installation of pipe caps, (2) the configuration of an RHR system drain line, and (3) consistency between procedures regarding valve positions.

These observations were discussed with Operations Department representatives, who acknowledged the inspector's comments and concerns regarding adequate documentation and control of safety-related plant components. The inspector noted that similar concerns have been identified to plant management resulting in a continuing program to resolve this issue through FSAR and drawing revisions. Immediate corrective actions included system walkdowns to

determine whether all safety-related pipe caps are installed. Vermont Yankee identified one additional case where a cap was not installed. Additionally, a near-term biennial update will correct the identified valve position discrepancies.

2.4 Reactor Building Closed Cooling Water (RBCCW) Expansion Tank Level Indication

During a plant tour, the inspector observed that a sight level hose was attached to an open drain valve on the RBCCW system expansion tank. The FSAR identifies the drain valve as normally shut. Because this condition appeared to be a modification to the facility, plant management was informed. Immediately, RCW 907 was tagged shut to isolate the level hose from the expansion tank. A subsequent review by VY determined that there was no safety concern. Failure of the tygon level hose and water drainage from the expansion tank would have been mitigated by operator response to the tank low water level alarm and the automatic tank fill system from the demineralized water system. Net positive suction for the RBCCW pumps would have been maintained.

Vermont Yankee determined that an ambiguity in the valve line-up requirements of the controlling procedure for the RBCCW system contributed to the cause of this condition. The line-up required the valve to be cycled open as required for level indication, however, this was interpreted by plant operators to allow the valve to remain open. Management's expectation and a supporting engineering evaluation performed for the installation of the level hose required the valve to be opened only for brief periods to read tank level. The level indication was installed in January, 1989, and the valve had been open since April, 1992. The inspector identified no concerns with VY's use of its "operator-aide" controls for the sight level hose apparatus.

The inspector concluded that the condition found in the plant had no safety significance, however, the implementation of a procedural change to control the operation of a temporary system was marginal because of the ambiguous wording. Vermont Yankee's corrective actions, which included a procedure change and operator training, were prompt and appropriate. A review of other systems identified a similar condition on the turbine closed cooling water expansion tank. This condition was also corrected.

2.5 (Closed) URI 90-03-01: Adequacy of Operating Indefinitely with One High Pressure Coolant Injection (HPCI) Steam Line Differential Pressure Indicating Switch (DPIS) Instrument Channel Inoperable

In Inspection Report 90-03, the inspector identified a concern regarding the acceptability of the VY position that, in accordance with the plant TSs indefinite operation with only one high pressure coolant injection (HPCI) system steam line flow differential pressure indicating switch (DPIS) was permitted.

Two DPISs detect HPCI turbine high steam flow, indicative of a HPCI steam line break, and provide input into the logic trip channels for HPCI steam line isolation. Actuation of either DPIS initiates isolation of the HPCI steam line and the output from each DPIS inputs to both logic trip channels. The reactor core isolation cooling (RCIC) system high steam flow instrumentation and trip channels are similarly designed.

In response to the concern, VY initiated a review of the plant TSs instrumentation requirements to identify areas which require additional clarification. A further equipment inoperability event, the associated licensed operator response, and the lack of interim written guidance for the operators in responding to this event were discussed in Inspection Report 91-19. Inspection Report 91-27, documented VY's development of interim written guidance for expected control room operator response for the loss of a DPIS in either the HPCI or RCIC isolation logics.

Vermont Yankee completed its final evaluation of TSs instrumentation requirements and concluded that further clarification is not warranted. This conclusion was arrived at by consideration of a number of factors, which included: (1) ensuring that the VY TSs are consistent with those used throughout the industry; (2) by receiving confirmation from the General Electric Co., the isolation logic system designer, that the availability of only a single DPIS preserves design and TSs requirements; and (3) utilization of a newly developed program designed to address timeliness of corrective actions.

The latter item refers to the use of the VY Basis for Maintaining Operation (BMO) Guideline. This guideline was issued on September 23, 1991 for a one year trial use, and was prepared to provide guidance regarding the process to be followed when TSs or safety related equipment deficiencies are identified. For the specific case at issue, the use of the guideline would stipulate that a BMO should be prepared and approved in approximately 15 days, unless the deficiency can be corrected within this period. Vermont Yankee expects that a valid BMO will be able to demonstrate that there is no unacceptable reduction in the protection provided to the public health and safety and/or there are appropriate compensating factors that can be applied in the interim until the deficiency is corrected. The BMO includes recommendations and time estimates for correcting the deficiency and is reviewed by the PORC

Vermont Yankee issued instructions in the Night Orders fc⁻ the control room operators to use the BMO process for ensuring timely corrective action for F, PCI and RCIC DPIS equipment. Actions taken by VY to address this issue were considered app opriate.

2.6 Uninterruptible Power Supply (UPS) 1A Inoperability and Declaration of Unusual Event - Terminated

On June 27 at 6:30 p..m., surveillance of the electric fire pump was in progress. An associated valving operation resulted in a momentary starting and stopping of the pump. The "UPS-1A Trouble" annunciator was received in the control room. Both the pump and UPS are powered from 480 VAC Bus No. 9, and apparently the resulting electrical transient on the bus affected UPS-1A. Maintenance personnel were onsite at the time attending to corrective maintenance activities for the inoperable "A" EDG, and were directed by the control room to respond to the UPS-1A equipment located in the reactor building. An auxiliary operator (AO) was dispatched to assess the alarm condition. Control room operators noted that motor control center (MCC) 89A was being supplied by UPS-1A and was at normal voltage.

UPS-1A is one of two rotating uninterruptible power supply units installed at VY to provide power to low pressure coolant injection (LPCI) system valves. The UPS consists of an AC motor and generator and a DC machine which can operate as either a motor or a generator (battery charger), depending on the mode of operation of the system. The responding AO documented the as-found local alarms and equipment condition and aided the maintenance electrician in assessing equipment status. A reverse current alarm was activated and the DC breaker was tripped open. By 7:10 p.m. the alarm condition was cleared following resetting of the UPS-1A. The Shift Supervisor (SS) was informed by the maintenance electrician that the 480 VAC input breaker on UPS-1A had tripped and the unit had attempted to shift to the DC drive mode. Based upon this information the SS concluded that the UPS-1A was continuously operable and the normal voltage level observed in the control on MCC-89A was due to the battery bank supplying power to the unit.

Loss of UPS-1A operability would, due to the inoperable status of the "A" EDG, require VY to determine that a TS required shutdown condition existed. Entry into this condition, even momentarily, would require the declaration of an Emergency Class (Unusual Event). Subsequently, the SS reviewed the documentation of as-found conditions provided by the AO. Due to the disagreement between the AO's documentation and the maintenance electrician's verbal field report, further discussions were held and it was determined that a miscommunication had occurred. Although the UPS-1A had been operating continuously from its normal 480 VAC supply, it would not have been capable of operating in the design basis required DC mode for the 40 minute time period between 6:30 p.m.-7:10 p.m.

At 7:50 p.m., the SS declared an Unusual Event - Terminated. Notifications to the States of Vernont, New Hampshire and the Commonwealth of Massachusetts were completed by 8:00 p.m. and notification to the NRC was completed by 8:05 p.m. The SS, VY's Duty and Call Officer, and Operations Superintendent discussed the event. It was decided to involve the cognizant plant engineer to conduct a preliminary engineering assessment of equipment performance and to ensure an appropriate basis existed to continue to consider the equipment operable. By 9:00 p.m. the plant engineer arrived on site and initiated his assessment, which confirmed by equipment and documentation reviews, and personnel interviews that equipment response to the electrical transient was appropriate and that the UPS-1A was operating properly. Further investigation of electrical bus conditions when operating the electric fire pump was planned. Vermont Yankee engineering also planned to contact the UPS vendor to verify that no equipment design or performance concerns exist. In accordance with plant procedures, a Potential Reportable Occurrence report was initiated to evaluate the event for LER reportability in accordance with 10 CFR 50.73.

Vermont Yankee personnel involved with this event were interviewed by the inspector. The inspector learned that the responding AO had some training in the UPS operation but considered it minimal. The reason for this was that he was an auxiliary control room operator (i.e., a licensed AO) and did not receive the equipment training that the AOs receive. The maintenance electrician had no formal training on the system and attempted to use the technical manual as an

aid in troubleshooting the problem. The time period used to respond, evaluate, and restore the equipment to a proper status on June 27 was not excessive nor significantly impacted by the training concerns identified above.

The communications between operations and maintenance personnel during response conditions are routinely observed by the inspector to be of high quality. Therefore, the miscommunication during this particular event was viewed by the inspector as an isolated incident. Once recognized, the declaration of an Unusual Event was accurate and timely. The VY Emergency Plan was effectively implemented. A good level of engineering support was provided to assess off-normal equipment performance during a back-shift period. The documentation practices of the AO were professional. Operations management involvement was effective.

3.0 RADIOLOGICAL CONTROLS (71707)

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During plant inspections, the inspector observed routine implementation of selected portions of the radiation controls program. Periodic inspection of plant maintenance, radiation surveys, and health physics reports verified compliance with established procedures and regulatory requirements. Radiological control procedures were adhered to except as identified below. Radiation protection equipment was operable and within calibration. Access controls to radiation and contamination areas were properly posted and controlled. The inspectors observed that radiological housekeeping continued to be excellent.

3.1 Failure to Follow Radiation Work Permit (RWP) Requirement

On June 1, the inspector observed two contractor workers jackhammering the concrete floor in the control rod drive (CRD) rebuild room, reviewed the RWP, and questioned the on-shift Radiation Protection (RP) technician whether the workers required respiratory protection. The RWP required the use of respiratory protection during "jackhammering or as required by RP," The surface contamination levels within the CRD rebuild room have been approximately 100,000 disintegrations per minute (kdpm) due to CRD mechanism rebuild activities which are performed every refueling outage. An RP technician immediately went to the work site and stopped the work. The on-shift RP Supervisor and technician promptly discussed this event with the workers and their supervisor. Surface contamination and airborne surveys before and immediately after this event indicated that the generation and subsequent inhalation of airborne contamination during this portion of maintenance was very unlikely (2-3 kdpm surface and 0.0 Maximum Permissible Concentration breathing zone air sample). Based on the surveys, whole-body counts were not performed. A Radiation Protection Incident Report (RPIR) was initiated to determined root cause and corrective actions. The dosimetry for the workers was removed until corrective actions could be completed.

Based on discussions with the workers, their supervisor, and the RP technicians who responded to this event, the inspector concluded that the workers displayed a complacent attitude to radiological requirements while performing this portion of the maintenance. The workers were fully cognizant of the RWP requirements, however, based on a recent general information survey (large area maslin, 2-3 kdpm) and recent experience in similar activities, they interpreted that respirators were not required and did not inform the RP staff of their plans to conduct the work without the respirators. This action was contrary to VY procedure AP 0502, "Radiation Work Permits" which requires each member of a work party to be responsible for reading, signing, and complying with the RWP requirements.

This failure to follow RP procedure requirements is not an isolated event, in that: (1) Radiological Audit Report VY-92-03 reported four instances where RWP requirements were not followed, (2) NRC Inspection Report 92-08 identified programmatic implementation problems associated with respiratory protection, and (3) approximately 10% of documented incidents of 1991 and 1992 RPIRs involved contractors failing to follow RP requirements.

In response to NRC Inspection Report 92-08 and VY self-identified program and implementation weaknesses associated with radiation protection, VY initiated various program improvements. A RP self-audit program was initiated to identify and correct concerns regarding procedural adherence and attention-to-detail. The audit will use field observation techniques and be conducted by RP supervisors who are independent of the work being performed. In addition, a commitment to improve RP training for plant workers and RP technicians was established. This training tentatively includes department specific and enhanced general employee training. A third area to receive increased attention involves the implementation of a senior management review group which will focus on worker-management interfaces, the monitoring of plant evolutions, and assessing the effectiveness of corrective action to self-identified weaknesses. Three specific areas which this pilot program intends to review and assess include RP practices, worker training, and procedural compliance. Vermont Yankee intends to assimilate individual department problems and observations to collectively identify root causes and correct¹ e actions.

Despite the recurrence of an inspector-identified event involving the failure to follow RP requirements, this violation will not be subject to enforcement because the criteria in Section VII.B.(1) of the NRC's Enforcement Policy were satisfied. Previously implemented corrective actions to address program weaknesses were not fully implemented and could not reasonably have been expected to have prevented this event. Vermont Yankee plans full implementation of the stated improvements in the last quarter of 1992, at which time they expect good performance for procedural adherence, attention-to-detail, and worker sensitivity to good radiation protection practices.

4.0 MAINTENANCE AND SURVEILLANCE (62703, 61726, 92700, 71707)

4.1 Maintenance

The inspector observed selected maintenance on safety-related equipment to determine whether these activities were conducted in accordance with TSs, approved procedures, and appropriate industry codes and standards.

4.1.1 "A" Emergency Dicsel Generator (EDG) Corrective Maintenance

Failure No. 1: Nos. 3 and 7 Cylinder Liners

On May 28 at 12:40 p.m., the "A" EDG was declared inoperable shortly after completion of the TS surveillance operability run due to widely fluctuating jacket cooling (JC) water pump discharge pressure and JC expansion tank level that occurred during diesel operation. The operability run was completed satisfactorily, however, during diesel shutdown the JC expansion tank overflowed and alarmed on low level. Cylinder, oil, and service water temperatures were within specifications during the run.

Initial maintenance activities focused on cavitation of the JC pump and the expansion tank level switches. Hand-over-hand inspections were conducted, rudimentary corrective maintenance was performed, and parts availability was researched prior to the arrival of the technical assistance from the diesel vendor (Fairbanks Morse Division of Colt Industries). Maintenance personnel and a mechanical engineer from the Mechanical Engineering and Construction Group were dedicated continuously to this activity.

For the next few days maintenance personnel, with the assistance of the vendor technical representative, worked to remove, inspect, and reinstall the adapter gaskets on the 12 combustion cylinders. Vermont Yankee assessed that the leakage of exhaust gases past the adapter gaskets into the JC system was the most probable cause of the fluctuating JC system pressure. The 48 adapters mate various external assemblies to the cylinder liner, such as fuel injectors, air start lines, and test adapters. The adapter and adapter gasket form the seal between the combustion chamber and the JC system, and between the JC system and atmosphere. This dual seal arrangement is necessary because the cylinder liners are internally cooled.

On June 1, during EDG operation to test the adapters, maintenance personnel identified gross exhaust gas leakage from cylinder No. 7 into the JC system. Internal cleaning and a visual inspection of the cylinder liner inner surface identified a 4-inch, hair-line crack version oriented and positioned equally between two adjacent cylinder adapter ports. The crack paralleled the cooling fins on the external surface of the cylinder liner. Subsequent destructive testing by the vendor identified that the crack was through wall and penetrated the thickest portion of the cylinder liner. A Yankee Nuclear Services Division (YNSD) materials engineer accompanied the cylinder to the vendor and reported that the vendor had not seen this type of cylinder failure for this EDG. Vermont Yankee attributed the root cause preliminarily to a casting defect.

During internal inspections of the remaining cylinders on June 2, VY identified internal cylinder wall chrome cladding separation at the No. 3 cylinder upper piston area on approximately 60 percent of its surface. In addition, three separate cladding indications were also identified in the combustion area of the cylinder liner. The worst of the three had a diameter of approximately 3/8 inch and 1/128 inch deep. The performance of the piston rings was not affected, because the indications were in the combustion area. The cladding, which covers combustion chamber

portions of the cylinder and upper and lower pistons, provides corrosion- and friction-resistant properties for the carbon steel cylinder liner. Cylinder cladding is not a stress member. The root cause for these indications was attributed to a 1983 event in which water had entered the diesel combustion chamber.

Despite continuous maintenance to correct the deficient conditions and to inspect other components to assure proper diesel operation and reliability, VY requested a temporary waiver of compliance from TS 3.5.H.1. This TS requires, in part, that an orderly reactor shutdown be initiated if an EDG is inoperable for seven days. On June 3, the NRC granted temporary relief from enforcement for a period of 24 hours to complete the post maintenance testing. During this time VY replaced a number of adapter gaskets and the No. 3 and 7 cylinder liners.

On June 4, following successful post-maintenance testing, VY declared the "A" EDG operable. Corrective action reports were initiated to determine root causes for the failures associated with the cracked No. 7 cylinder, the cylinder clad inclusions and separation, loose cylinder mounting bolts, and excessive accumulation of sludge in the JC system sludge. The root causes have not been determined by the end of this inspection period.

Failure No. 2: No. 10 Cylinder Liner and Adapter Gaskets

On June 23 at 4:50 a.m., one hour into the TS monthly surveillance, the "A" EDG tripped on low JC pressure. At 4:57 a.m. the diesel was declared inoperable and VY entered the 7-day action statement of TS 3.5.H.1. The trip was again caused by exhaust gasses entering the JC system. Vermont Yankee determined that 18 of 48 adapter gaskets were improperly crushed, thereby, allowing exhaust gasses to enter the JC system. In addition, the No. 10 cylinder liner was cracked. This crack, unlike the first failure on No. 7 cylinder, originated from a threaded adapter port on the cylinder liner. Vermont Yankee replaced all cylinder liners except the No. 3 which was replaced after the first failure, and the adapter gaskets. To assure proper seating many adapters were also replaced. Although the No. 7 cylinder liner was replaced after the first failure, it was changed again because it was of an older design.

The replacement of the additional cylinder liners was intended to improve diesel reliability, to improve performance, and to remove concern regarding common mode failure of the other original cylinder liners. However, this lengthened the repair schedule and required VY to request a second temporary waiver of compliance from the 7-day LCO of TS 3.5.H.1 to support continued plant operations. On June 29, the NRC granted relief for an additional 48 hours to complete post maintenance testing. On July 1, VY declared the "A" EDG operable.

The inspector noted that the EDG vendor representative installed the adapters and gaskets during the maintenance for the first failure. The latest Fairbanks Morse Service Information Letter (SIL), dated May 1, 1990, was used for installation techniques and the torque values. A shop test of the adapter torquing technique identified that the method used for adapter installation, as identified in the SIL, did not produce consistent results. Special tooling was obtained to install the adapters using a second prescribed method. The No. 10 cylinder liner will also be sent to

the vendor for evaluation and analysis. Vermont Yankee's current assessment is that the two failures are not common due to the crack locations and propagation characteristics and a failure mechanism for the No. 10 cylinder liner can be attributed to the adapter installation.

Failure No. 3: Service Water Flow Control Valve

On July 6 at 10:10 a.m., seven minutes into an augmented surveillance performed to provide additional assurance that EDG performance was acceptable following restoration of the system from the second failure, the diesel tripped on high JC temperature due the loss of service water cooling. Service water valve SW-FCV-28A positioned shut when a valve position indicator providing feedback to its control system vibrated loose and felt to the "valve full open" position. Vermoral Yankee installed lock tight on the feedback linkage cap screw, confirmed that the linkage on the "B" EDG was not loose, and performed a loose parts walkdown on the diesel.

The 'oose valve position feedback linkage was not attributed to the maintenance that was performed during the two previous diesel events, however, VY indicated that the part may have loosened due to the run periods (in excess of 40 hours) following each of the two previous maintenance activities. The linkage is checked every 18 months when periodic preventive maintenance is performed on the valve. Vermont Yankee also identified that a temperature switch for the JC system failed during this event. The preliminary root cause for the relay failure has been attributed to age and the preventive maintenance schedule for the relay will be re-evaluated.

Event Analysis

Overall, the inspector concluded that VY had taken aggressive action to repair the identified deficiencies. The installation technique for the cylinder adapters is currently being reviewed by VY to determine root cause of the seemingly inadequate, yet vendor approved, installation technique. The VY engineering organization is reviewing the applicability of 10 CFR 21 requirements for this condition. The performance of extensive EDG inspections during the three failures identified other issues requiring review (sludge accumulation in the JC system, loose cylinder mounting bolts, accelerated wear of an aluminum thrust bearing, and the failure of a temperature alarm switch). The identification of deficient material conditions beyond the initial maintenance effort has been a VY strength. The inspector observed that quality assurance (QA) inspections were performed during all three failures. The inspector verified that the QA inspectors were knowledgeable of the work performed and of the maintenance documentation. The QA reports were prompt and accurate.

Vermont Yankee management was effectively involved in the maintenance performed. Good instructions were provided to control room operators regarding the control of maintenance and surveillance activities to assure the continuity of onsite and offsite power. The inspectors attended numerous PORC and maintenance meetings which discussed the activities, preliminary root causes, and corrective maintenance required. Probing discussions and good safety assessments were noted. A Nuclear Safety Audit Review Committee also reviewed the activities

associated with the "A" EDG. Vermont Yankee management was sensitive to personnel performance during the extended maintenance, questioning of the quality of vendor support, and initiated actions for improving the reliability and availability of the "A" EDG. Appropriate discussion was also focused on the status of the "B" EDG and whether common failures were a concern. The installation of cylinder liners of improved design into all cylinders of the "A" EDG reflected a proper safety perspective.

Diesel Generator Task Force

As a result of the increase in unavailability of the "A" EDG, VY formed a task force to make recommendations that are intended to assure the VY preventive maintenance and surveillance programs remain current and maximize diesel availability. The Task Force, whose five members are independent of the maintenance organization, will review, in part, vendor, industry, and VY diesel history; industry and regulatory guidance; design changes and vendor interfaces; and EDG performance trending.

Vermont Yankee management expressed concern about the decrease in diesel availability and considered the situation unacceptable. The wide latitudes and support dedicated to the Task Force is intended to assure a thorough and comprehensive review of diesel maintenance and indicates management's support for improved diesel performance. Vermont Yankee indicated that the resolution of issues such as the adequacy of the maintenance program to keep up with the aging of the diesels and the implementation of a reliability-centered maintenance program are intended to improve diesel performance and reliability.

4.2 Surveillance

The inspector performed procedure reviews, witnessed in-progress surveillance testing, and reviewed completed surveillan packages. The following surveillances were reviewed:

- OP 5314, Rev. 8, "Calibration of HPCI System Balance of Plant Instrumentation"
- OP 4120, Rev. 25, "HPCI System Surveillance"
- OP 4121, Rev. 29, "Reactor Core Isolation Cooling Surveillance"
- OP 4115, Rev. 28, "Primary Containment Surveillance"
- OP 4202, Rev. 11, "Primary Containment Vacuum Breaker Inspection and Testing"
- OP 5337, Rev. 2, "HPCI Control System Calibration Test"
- OP 4501, Rev. 4, "Filter Testing"

The surveillances inspected were effective with respect to meeting the safety objectives of the surveillance program. The inspector observed that the tests were performed by well qualified and knowledgeable personnel, in accordance with TS and approved procedures.

4.2.1 High Pressure Coolant Injection (HPCI)

The inspector performed a detailed review of this monthly TS required surveillance and concluded that management oversight, maintenance, and test control were excellent. For example, the activities to correct a deficiency with turbine speed indication included: (1) the use of appropriate procedures, technical documentation, and good work practices during trouble shooting; (2) effective supervision by foremen who were cognizant of actual maintenance steps and provided clear direction regarding calibration techniques and procedural compliance; (3) prompt use of engineering expertise in regards to a recognized deficiency in the calibration technique; and, (4) appropriate post-maintenance testing which verified the proper operation of the components adjusted and/or repaired. The actions to correct the deficiency in the calibration technique and a related test procedure were appropriate.

4.2.2 Filter Testing

The inspector reviewed the conduct of standby gas treatment (SBGT) system filter testing activities on June 9. This activity is performed at VY in accordance with procedure OP 4501. TS 3.7.B.2.b specifies that the results of laboratory carbon sample analysis shall show \geq 95 percent radioactive methyl iodide removal. Furthermore, TS 4.7.B.2 specifies, in part, that this test is performed at least once per operating cycle not to exceed 18 months and after every 720 hours of system operation. Vermont Yankee uses an elapsed time meter installed in each of the SBGT system fan motor circuits to obtain the knowledge that this use dependent condition has occurred.

Previously, VY had identified the SBGT system as a torus vent path for use in maintaining drywell to-torus differential pressure requirements of the TSs and would therefore cause flow to pass through the system filters. This flow represents less than one percent of system design flow and is unmeasurable. In this mode of operation the SBGT system fans are off and the system's filter to account for this mode of operation is contained in VY TS Interpretation No. 23, Rev. 1, dated October 1, 1987. This document is issued as an administrative policy by the Senior Vice President, Operations. This document is issued in a controlled manner to all controlled copies of the TSs. Specifically, the Interpretation specifies that while operating in the torus vent path mode, the sample analysis of TS 3.7.B.2.b shall be performed every six months provided the SBGT system fan(s) has not operated for more that 720 hours.

In reviewing testing activities, reviewing procedural controls, and interviewing VY personnel, the inspector noted the following:

 On January 6 the Surveillance Testing Program, as controlled by procedure AP 4000, Rev. 14, Surveillance Testing Control, was revised by the Radiation Protection Manager (RPM) to replace the six month sample analysis of the SBGT system carbon with a yearly surveillance. The RPM acknowledged as an oversight his failure to recognize the VY TS interpretation requirement. The inspector noted that the Surveillance Testing Program Change Form, VYAPF 4000.01, specified the last completed tests for the filters as being conducted on June 4 and 6, 1991 for the "A" and "B" trains, respectively and that the new annual due date would be May 31, 1992. Fortunately, the actual previous filter testing was accomplished in November 1991. Since the surveillance program files did not have the latest test information, the scheduling in June of the subject surveillance preclude 3 exceeding the requirement specified in the TS Interpretation.

Procedure 4501, Rev. 14, "Filter Testing" did not contain any reference to TS Interpretation No. 23. No effective control provisions for ensuring the TS required filter testing would be conducted every 720 hours existed in this procedure. However, the cognizant RP assistant sent a memorandum to the RPM on January 24, 1992 that documented the identification that no formal mechanism existed for ensuring that the subject 720-hour surveillance would be accomplished. This procedure is scheduled for its biennial review in August 1992. A review by the inspector of surveillance records for filter testing from 1989 to the present identified no challenges for the need to conduct non-periodic testing on a 720-hour basis.

The inspector's observations were discussed with VY representatives, who acknow ed_ed the comments and concerns. Immediate corrective actions consisted of: (1) incorporating in procedure DP 0540, Rev. 5, "Radiation Protection Department Surveillance Scheduling the requirement to obtain and record once per week on a daily checkoff sheet the SBGT system elapsed time meter readings; and (2) submitting on June 9, a Surveillance Testing Program Change Form to specify the conduct of the filter testing to be accomplished for periodic purposes on an every 6-month interval. Longer term corrective actions to further ensure adequate surveillance testing ontrols are established will consist of revising procedure OP 4501 during its biennial review in August. Vermont Yankee has previously established the effectiveness of their biennial procedure review process for performing comprehensive review of surveillance testing requirements due to the use of a detailed writer's guide.

The failure of VY to adequately prepare written procedures to ensure the conduct of TS 4.7.B.2.c surveillance requirements is contrary to TS 6.5, Plant Operating requirements and is considered a violation. The violation is not being cited because the criteria specified in Section VII.B. of the Enforcement Policy were satisfied.

5.0 EMERGENCY PREPAREDNESS (71707)

5.1 Technical/Operations Support Center Mini-Drill

The inspector observed portions of the June 4 Technical Support Center/Operations Support Center mini-drill and noted the staffs were thoroughly involved in the role playing and used applicable emergency response procedures. The inspector also noted that the drill was well planned and executed. This activity demonstrated a strong commitment by VY in the area of emergency preparedness.

5.2 Medical Emergency Response Drill

On May 28, personnel from VY, Rescue Incorporated of Brattleboro, VT, and Brattleboro Memorial Hospital (BMH) of Brattleboro, VT, participated in a medical emergency response drill. This annual drill demonstrated the readiness of transportation activities and BMH personnel to effectively treat a contaminated injured person. The Vermont Emergency Management Agency and VY evaluated this drill.

The inspector observed that VY onsite response to this drill was timely and commensurate with the severity of the contamination and injury. Good coordination between Security, the onsite medical response team (MRT), and RP technicians ensured the timely diagnosis and transportation of the injured person. The MRT frequently communicated details of the rescue effort to control room operators and Security personnel to keep them properly informed of the status of the rescue.

5.3 Improvements to Offsite Response Capability

Vermont Yankee has recently acquired very high baud rate modems capable of transmitting process computer information to remote sites. The enhanced technology will reduce transmission times by a factor of three and contribute significantly towards the use of "live" plant data by offsite response organizations. Vermont Yankee expects the improved equipment to be installed prior to the 1992 Emergency Plan drill and exercise.

6.0 SECURITY (71707, 92700, 90712)

6.1 Observations of Physical Security

The inspectors verified that various aspects of the security program were implemented in accordance with established procedures. Periodic observations of staffing, entry control, alarm stations, and physical boundaries assured physical protection of plant equipment.

6.2 Compensatory Measures for Maintenance

The inspector reviewed the security compensatory measures established for maintenance activities associated with maintenance on the "A" EDG, intake structure, and Gate House 2. The officers posted were cognizant of their duties and responsibilities, appropriate post orders were available, and discussions with the Security Shift Supervisors indicated that appropriate pre-shift briefs were conducted. The inspector observed that personnel and equipment control was appropriate.

6.3 Positive Drug Test Result

On June 25, VY reported a positive drug indication for an NRC licensed (inactive) operator based on results from a random test which was administered on July 19. The individual performed no licensed responsibilities. The individual was referred to the VY Employee Assistance Program for assessment and counseling and his site access was removed. This occurrence was the first positive result from a random drug screen at VY since the inception of the fitness-for-duty program. The NRC Region I Office requested in its June 30 letter to VY additional information on this matter for the purpose of evaluating if further action by the NRC, pursuant to 10CFR50 and 55, is warranted.

6.4 Non-credible Bomb Threat

On June 13, VY Security received a potential bomb threat from a self-identified individual, who represented no specific organization. Security and Operations personnel implemented contingency actions in accordance with approved procedures. Notifications to the NRC were timely and reflected an appropriate conservative orientation. Coordination with local and state law enforcement agencies was effective and contributed to the assessment of this event. Subsequently, VY concluded that the threat was non-credible.

7.0 ENGINEERING AND TECHNICAL SUPPORT (71707, 90712)

7.1 EDG Aftercooling Cooling System

The inspector informed VY about a 10CFR21 report issued by another utility involving a design deficiency in the air cooling system of the EDG. This potential problem would have allowed a portion of the cooling flow to the aftercooler air heat exchanger to be diverted to the jacket heat exchanger through the EDG's keep warm system, and may have prevented the EDG from carrying its design loads under certain conditions. Vermont Yankee performed a thorough analysis of this issue and confirmed by direct measurement that cooling flow was not being diverted from the aftercooler air heat exchanger. The inspector was satisfied with VY's analysis and resolution of this issue.

7.2 Local Leak Rate Testing for Containment Isolation Valves

The inspector reviewed VY's local leak rate testing (LLRT) program to assess whether the implementation of the program assures that the TS allowable leakage through primary containment penetrations is not exceeded. This program includes the leak rate testing of containment penetrations and isolation valves and the incorporation of these leakages into an evaluation to verify that the overall integrated leakage rate for the primary containment is within acceptance criteria. The specific areas inspected included: (1) in-plant control and testing of manual isolation valves, (2) the administration and implementation of exemptions, and (3) local leak rate testing of five manually operated valves and inspection of 12 penetrations during Refueling Outage XVI.

Overall, the inspector noted no conditions that significantly reduced the effectiveness of the primary containment design to prevent unacceptable radiological releases to the environment as a result of a design basis accident. Containment isolation valves were properly positioned, the performance of LLRT was in accordance with approved procedures, equipment was in

calibration, and the workers were knowledgeable and cognizant of testing attributes and requirements. However, the inspector did discuss with the Mechanical Engineering and Construction Supervisor (MES) and the Assistant Operations Manager the following observations and concerns:

- 1. Vermont Yankee appears to deviate from the Type 1 testing exemption from 10CFR50, Appendix J LLRT, which is described in NRC Technical Evaluation Report dated July 2, 1982. This exemption relieves test connections from a LLRT if the line is of one inch or less in diameter, is equipped with at least one valve and cap in series, and is under administrative control. Vermont Yankee controls that the use of a two valve isolation without a cap in series is equivalent to the stated exemption. ANSI/ANS 56.8-1987, "Containment System Leakage Testing Requirements" endorses this equivalency, however, VY had not formally committed to this standard. The use of ANSI/ANS 56.8-1987 did not appear to be consistent with the stated NRC approved Type 1 exemption. The use of the two valve isolation technique may have been used for steam tunnel located test connections that are applicable to the Type 1 testing exemption. Vermont Yankee will assess this condition when radiological conditions in the steam tunnel support an entry.
- 2. There is inconsistent selection of second containment isolation valves for primary containment with respect to function and safety class designations. Additionally, the LLRT program does not list the secondary isolation valves for penetrations 210A/B and 224A/B and valves RCIC 143A, HPCI 153B, and CS 15A/B. This is inconsistent with similarly configured penetrations and valves. Selection of valves of the same configuration and function for the LLRT program appeared to be inconsistent.
- 3. Vermont Yankee appears to not have evaluated a statement in the FSAR describing a Core Spray (CS) system test connection that requires two valve isolation and a pipe cap installed to assure primary containment. The inspector noted that the subject CS valves (CS-24A/B and 25A/B) were not addressed in VY procedure OP 2115, "Primary Containment" and that the valves were not required to be LLRT in accordance with OP 4030, Rev. 20, "Type B and C Primary Containment Leak Rate Testing," On July 2, the inspector observed that the pipe caps were not installed. This condition is different than the as-left requirements specified in procedure OP 4030. A walkdown of accessible LLRT test instrument connections identified a second fitting not capped. In addition, system operating procedures do not administratively control LLRT capping requirements (see Section 2.3). Test fittings did not appear to be effectively controlled and coordination between departments was inadequate.

In the aggregate these items remain unresolved pending further review (URI 92-12-01).

8.0 SAFETY ASSESSMENT AND QUALITY VERIFICATION (40500, 71707, 90712, 90713, 92700)

8.1 Periodic and Special Reports

The plant submitted the following periodic and special reports which were reviewed for accuracy and the adequacy of the evaluation:

- Monthly Status of Feedwater Nozzle Temperature Monitoring for May, 1992.
- Monthly Statistical Report for May, 1992.

8.2 Licensee Event Reports

The inspector reviewed the Licensee Event Reports (LERs) listed below and determined that, with respect to the general aspects of the events: (1) the report was submitted in a timely manner; (2) the description of the event was accurate; (3) a root cause analysis was performed; (4) safety implications were considered; and, (5) corrective actions implemented or planaed were sufficient to preclude recurrence of a similar event.

LER 92-01, "Inadvertent High Pressure Coolant Injection (HPCI) System Suction Transfer." Inspection Report 92-01 documented the occurrence of this event and NRC identified reportability concerns involving the actuation of an engineered safety feature. The issuance and content of the LER was determined to be in conformance with VY commitments detailed in the referenced inspection report.

LER 92-05, Supplement 1, "Reactor Scram During Shutdown Caused by the Contacts on the Reactor Mode Switch Not Closing as They Should Have," (NRC Inspection Reports 92-04 and 92-06).

LER 92-15, "RCIC System Declared Inoperable Due to Flow Controller Setpoint Drift."

8.3 Nuclear Safety Audit and Review Committee (NSARC)

The inspector observed portions of the June 2 meeting of the NSARC. The NSARC is VY's independent offsite review committee. The inspector determined that the TS requirements for committee composition, qualification and meeting frequency were met. Detailed presentations of past and current plant performance issues were presented to the committee. The committee members' discussions following the presentations were in-depth and focused the proper safety perspective on the issues. The committee utilized a formal process for tracking and resolving issues generated from the meetings. Overall, the committee was responsive to the identification of potential safety issues and independently evaluated activities involving plant safety.

8.4 Quality Assurance Programs

The Vermont Yankee Quality Assurance program was reviewed to assess its effectiveness. The review included discussions with Yankee Nuclear Services Division (YNSD) personnel on June 16, discussions with corporate personnel on June 17, and examination of documentation, safety evaluations, audits and surveillances.

Reviews of a sampling of safety evaluations, Quality Assurance audits and Quality Control surveillances indicated good quality. Resolution of corrective action reports (CARs), nonconformance reports (NCRs), and RPIRs were appropriate.

Several positive initiatives to improve the quality assurance functions have been implemented. These initiatives included the integration of surveillances and audits under one manager to provide a greater in-depth assessment and review of potentially weak areas, the use of auditors from other utilities to provide an independent review of VY programs, the commitment of VY personnel for audits at other plants, and the use of performance based audits and departmental self-assessments. Regarding the latter item, the inspector noted that the Quality Assurance Department (QAD) is professional and thorough in their self-assessments, is adequately staffed, and enjoys the close involvement of all levels of management within YNSD and the VY organization. Overall, the Vermont Yankee Quality Assurance Program was determined to be effective.

In the area of corrective actions, improvements were also observed. A new guideline for the CAR process was developed. Trending of CARs, NCRs and other corrective action processes was observed. Corrective action effectiveness was reviewed by VY through follow-up of the issee after a specified period of time elapsed.

Although numerous improvements were noted in corrective actions, VY recognizes and is pursuing additional improvements. These planned improvements include: rewriting the NCR procedure, reviewing the threshold for initiation of corrective action processes, investigating the options of using various methodologies for determining root cause, and consolidating the corrective action processes. The on-going efforts of VY to provide enhancements for the corrective action processes were considered a notable strength.

8.5 Employee Safety Concerns Program

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During this inspection period, VY's processes for resolution of employee concerns were reviewed to assess their current status and effectiveness. This review included examination of documents and procedures, discussions with VY management, and interviews with employees and contractors.

Vermont Yankee's preferred method for resolving employee concerns is through the employee's immediate supervisor. To assure the effectiveness of this method, VY implemented several initiatives, such as communications training and team building training. Additionally, senior management has emphasized to managers and supervisors the need to be responsive in resolving employee concerns.

Although the resolution of concerns through the employee's immediate supervisor is preferred, VY has communicated to their personnel that the use of an alternate means is acceptable and appropriate. This communication was evidenced through newsletters and program information dissemination, soliciting of concerns prior to startup from the refueling outage (i.e., startup PORC notice) and enhanced contractor awareness. One alternate process is to raise safety concerns to management levels above the immediate supervisor. Vermont Yankee considers this a viable process due to the accessibility of management to site personnel. For example, the Senior Vice President of Operations (Sr. VP OPS) is frequently on site and has communicated to employees his receptiveness in discussing concerns which employees may have.

Other processes, which VY views as avenues for an employee to resolve a safety concern, include the safety committee, the safety coordinator, the ALARA committee, union grievances, and the Employee Improvement Suggestion and Safety Concern Program.

The primary process by which an employee can raise a concern anonymously is through the Employee Improvement Suggestion and Safety Concern Program. The program description and guidance is documented in Vermont Yankee Policy 225. Since its inception in 1989, over 400 suggestions have been submitted, 34 percent of which were safety related. Only eight suggestions or concerns have been submitted confidentially to the Internal Auditor or the President since this option was added to the program in 1991.

The inspector questioned whether the dual aspects of the program, that is to elicit improvement suggestions for which an employee can receive a monetary award and to provide a mechanism to address safety concerns for which an employee or contractor has exhausted other options or wishes to remain anonymous, would result in confusion for VY and contractor personnel. The inspector noted that the Improvement Suggestion and Safety Concern Form appeared to emphasize the improvement suggestion aspect of the program. Consequently, several plant personnel were interviewed to ascertain their understanding of this process as well as other employee safety concern processes.

Based on personnel interviews, the inspector determined that site personnel views about supervisory responsiveness to addressing employee safety concerns was generally good. Some personnel indicated that they have used some of the processes (i.e. the safety committee and the Employee Improvement Suggestion and Safety Concerns Program). Additionally, they were aware of some of the other processes which were available to resolve employee safety concerns. The personnel interviewed indicated that the working atmosphere neither constrained nor discouraged them from raising concerns above the level of their immediate supervisor. One individual indicated that he would raise concerns to the Sr. VP OPS, if necessary, due to the receptiveness of VY management in acknowledging and resolving safety concerns.

The inspector noted, however, that all personnel interviewed considered the primary function of the Employee Suggestion Improvement and Safety Concern Program to be suggestion improvement with the possibility of monetary gains. Some of the personnel interviewed indicated that they were not aware that one of the purposes of the program was to facilitate the identification of safety concerns in an anonymous manner. The rest of the personnel interviewed were vaguely aware that the program may be used to raise safety concerns but considered that this a not the primary function of the program. When questioned about recalling this as an option in General Employee Training or any other mechanism, personnel interviewed could not recall whether this aspect of the program was emphasized. It was noted that personnel stated that if they ever encountered a situation which they have a safety issue which was not being appropriately resolved that they may look for and identify this as a mechanism to raise the issue. Personnel, however, stated that they never found a need.

Overall, the atmosphere created by VY management and supervisors appears to be positive for resolution of employee safety concerns. Personnel interviewed indicated that management has responded in addressing safety concerns in an appropriate manner. However personnel knowledge of the mechanism by which safety concerns can be addressed anonymously appears to be weak. Additionally, VY's evaluation of their employee concern program will not thorough in assessing personnel understanding of the processes and options. Notwithstanding these issues, the receptiveness and responsiveness of VY to resolving employee safety concerns in accordance with their established processes was viewed by the inspector as being effective.

9.9 MANAGEMENT MEETINGS (30702)

9.1 Preliminary Inspection Findings

Meetings were periodically held with plant management during this inspection to discuss preliminary inspection findings. A summary of findings was also discussed at the conclusion of the inspection on July 14. No proprietary information was identified as being included in the report.

An unresolved item is a matter about which more information is required to ascertain whether it is an acceptable item, a deviation or a violation. An unresolved item regarding LLRT is discussed in Section 7.2 of this report.

9.2 Region Based Inspection Findings

Two Region based inspections were conducted during this inspection period. Inspection findings were discussed with senior plant management at the conclusion of the inspections.

Date	Subject	Rpt. No.	Inspector
June 1-5	Engineering/Tech Support	92-13	S. Chaudhary
June 29-July 2	Emergency Preparedness	92-14	L. Eckert