

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-440/92026(DRP)

Docket No. 50-440

License No. NPF-58

Licensee: Cleveland Electric Illuminating Company  
Post Office Box 5000  
Cleveland, OH 44101

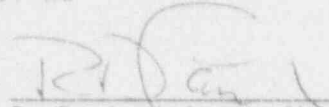
Facility Name: Perry Nuclear Power Plant

Inspection At: Perry Site, Perry, Ohio

Inspection Conducted: December 29, 1992, through January 31, 1993

Inspectors: A. Vogel  
D. Kosloff  
E. Duncan  
J. Hopkins  
M. Bielby  
J. Smith  
S. Wu

Approved By:

  
R. D. Lanksbury, Chief  
Reactor Projects Section 3B

2/12/93  
Date

Inspection Summary

Inspection on December 29, 1992, through January 31, 1993, (Report No. 50-440/92026(DRP))

Areas Inspected: Routine unannounced safety inspection by resident, headquarters, and region based inspectors of licensee action on previous inspection findings, licensee event report followup, surveillance observations, maintenance observations, operational safety verification, event followup, and engineered safety features system walkdown.

Results: In the seven areas inspected, no violations or deviations were noted.

The following is a summary of the licensee's performance during this inspection period:

Plant Operations

The reactor plant was operated at or near full power during the inspection period until January 8, 1993, when the plant was shut down for a mid-cycle maintenance outage. Operator control of the shutdown

was good. Poor operating practices were observed concerning operation of the solid radwaste crane with override switches mechanically held in the override position with adjustable wrenches.

#### Maintenance/Surveillance

The quality of observed maintenance and surveillance activities was good.

#### Engineering and Technical Support

Good engineering and technical support of daily plant activities was noted.

#### Safety Assessment and Quality Verification

The quality of reviewed event reports was acceptable. A weakness in the adequacy of corrective action efforts was identified due to the failure of the licensee to address equipment problems with the solid radwaste crane.

## DETAILS

### 1. Persons Contacted

#### a. Cleveland Electric Illuminating Company

R. Stratman, Vice President - Nuclear  
D. Igyarto, General Manager, Perry Nuclear Power Plant (PNPP)  
K. Donovan, Manager, Licensing and Compliance  
\*M. Gmyrek, Operations Manager, PNPP  
S. Kensicki, Director, Perry Nuclear Engineering Department (PNED)  
F. Stead, Director, Perry Nuclear Support Department (PNSD)  
\*H. Hegrat, Compliance Engineer, PNSD  
E. Riley, Director, Perry Nuclear Assurance Department (PNAD)  
\*W. Coleman, Manager, Quality Assurance Section, PNAD  
\*V. Concel, Manager, Technical Section, PNED  
\*D. Conran, Compliance Engineer, PNSD  
M. Cohen, Manager, Maintenance Section, PNPP  
P. Volza, Manager, Radiation Protection Section  
R. Tadjch, Manager, Quality Control Section, PNAD  
D. Cobb, Superintendent, Plant Operations, PNPP

#### b. U. S. Nuclear Regulatory Commission

J. Hannon, Director, Project Directorate III-3, Office of Nuclear Reactor Regulation (NRR)  
J. Hopkins, Sr. Project Manager, NRR  
S. Wu, Reactor Inspector, NRR  
\*A. Vogel, Acting Senior Resident Inspector, RIII  
E. Duncan, Reactor Engineer, RIII  
J. Hopkins, Project Engineer, RIII  
D. Kosloff, Resident Inspector, RIII  
M. Bielby, Operator Licensing Examiner, RIII  
J. Smith, Reactor Inspector, RIII

\* Denotes those attending the exit meeting held on February 1, 1993.

### 2. Licensee Action on Previous Inspection Findings (92701, 92702)

a. (Closed) Open Item (440/91003-08(DRP)): Review of administrative controls to assure draft procedure revision requests were being acted on in accordance with plant procedures. The licensee's quality assurance section (QAS) conducted a review of the issue and documented the results in surveillance report numbers 91-049 and 92-250. The licensee determined that change requests were evaluated and incorporated into procedures correctly. The inspectors concluded that the licensee's evaluation was adequate and have no further questions at this time. This item is closed.

No violations or deviations were identified.

3. Licensee Event Report (LER) Followup (90712, 92700)

Through review of records, the following event reports were reviewed to determine if reportability requirements were fulfilled, immediate corrective actions were accomplished in accordance with technical specifications (TS) and corrective action to prevent recurrence had been established:

- a. (Closed) LER 50-440/91018-00: On October 6, 1991, control rod 46-23 exceeded its maximum scram time to position 43. Operators then took action to demonstrate that the eight adjacent control rods to control rod 46-23 could satisfy the maximum scram insertion time limits. Control rod 42-19 also exceeded its maximum scram insertion time to position 43. Because control rods 46-23 and 42-19 were adjacent rods, the plant was required by technical specifications to be in at least HOT SHUTDOWN within 12 hours. On October 6, 1991, at 2:36 p.m., operators commenced a shutdown of the plant.

Licensee Investigation of Root Cause and Corrective Actions

Root Cause:

The licensee determined the cause of the "slow" control rods was failure of the scram solenoid pilot valve (SSPV) for each of the affected control rods. A combination of contaminants found on the valve disk and seats was believed to have formed an adhesive which could have bound the valve seat. All of the suspect SSPVs were from the same vendor lot.

Corrective Action

After shutdown of the plant, all 49 of the SSPVs from the suspect lot were removed from their associated hydraulic control units (HCUs) and replaced. The maintenance instruction for HCUs was revised to ensure that potential contaminants were not used during maintenance. As part of the established requalification training program, all plant licensed operators were instructed on the lessons learned from this event.

Inspectors' Review

The inspectors previously documented review of this event in Inspection Reports (IR) 50-440/91016(DRP) and 50-440/91023(DRP) dated October 21, 1991, and December 18, 1991, respectively. During this inspection period the inspectors reviewed licensee documentation to assess the adequacy of corrective actions. The inspectors concluded that licensee actions appeared thorough and adequate in preventing recurrence.

Part of the corrective action stated in the LER stated: "Generic Maintenance Instruction (GMI-122), Hydraulic Control Unit Equipment Qualification Maintenance, will be revised to specify the use of teflon tape to seal the threads rather than a liquid threadlocker and will specify the use of only approved aqueous



cleaning agents." Since teflon tape was not environmentally qualified for use in containment, the commitment could not be completed as stated. As a result, in a memorandum from H. Hegrat, dated December 23, 1992, the licensee clarified the commitment to ensure only approved tape would be used for this application. This item is closed.

- b. (Closed) LER 50-440/92013-00: On May 14, 1992, while in operational condition 4, COLD SHUTDOWN, maintenance on the #2 turbine stop valve (TSV) resulted in an unanticipated engineered safety feature (ESF) actuation. Four main steam line (MSL) drain valves isolated due to a low main condenser vacuum signal when the TSVs were opened to greater than 90 percent. Immediate corrective action was taken to secure TSV maintenance until the cause was found and corrected.

#### Licensee's Investigation of Root Cause and Corrective Actions

##### Root Cause

The licensee determined the root cause for this event to be an inadequate procedure (work order).

The low main condenser vacuum trip function was bypassed when the condenser low vacuum bypass switches were placed in "bypass" and the TSVs were less than 90 percent open. The bypass switches were in "bypass" for this event. However, as part of the trip bypass logic, when the TSVs were opened to greater than 90 percent, a relay in the condenser low vacuum bypass logic deenergized and caused a condenser low vacuum trip to occur.

The work order (WO) to troubleshoot #2 TSV did not contain any precautions regarding TSV position or any steps to prevent actuating the low condenser vacuum trip logic. During this event four MSL drain valves, which were open for MSL draining, isolated when the TSVs were opened to greater than 90 percent.

##### Corrective Actions

Corrective actions included revising the TSV maintenance WO and adding a note to the generic TSV WO to alert planning personnel to the loss of the trip bypass feature when the TSVs are greater than 90 percent open. Additionally, all licensed operators, Instrumentation and Controls (I&C) technicians, and I&C work planners were instructed on the lessons learned from this event.

##### Inspectors Review

Initial review of this LER was documented in Inspection Report 50-440/92009(DRP), dated June 18, 1992. During this inspection period, the inspectors reviewed the applicable licensee documentation and noted that all corrective action commitments were completed. The inspectors concluded that the licensee's corrective actions appeared reasonable and adequate to prevent recurrence of this event. This item is closed.

Evaluation of the effectiveness of licensee's corrective actions to prevent recurrence of similar events caused by personnel errors was documented in Inspection Report 50-440/92014(DRS) dated September 16, 1992.

No violations or deviations were identified.

4. Monthly Surveillance Observations (61726)

For the surveillance activities listed below, the inspectors verified one or more of the following: testing was performed in accordance with procedures; test instrumentation was calibrated; limiting conditions for operation were met; removal and restoration of the affected components were properly accomplished; test results conformed with technical specifications, procedure requirements, and were reviewed by personnel other than the individual directing the test; and any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

<u>Surveillance Activity</u>	<u>Title</u>
SVI-R43-1318	Division II Diesel Generator Start and Load
PTI-N32-P0003	Main Turbine Overspeed Trip Test
SVI-C51-T0027-C	APRM "C" Trips Channel Functional

No violations or deviations were identified.

5. Monthly Maintenance Observation (62703)

Station maintenance activities of safety-related systems and components listed below were observed and/or reviewed to ascertain that activities were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority was assigned to safety-related equipment maintenance which may affect system performance.

Specific Maintenance Activities Observed:

<u>Work Order(WO)/Repetitive Task No.</u>	<u>Title</u>
WO-92-05148	1E51-F0068 - Addition of low pressure isolation signal, DCP 92-43
WO-92-0066	Static MOVATS testing for 1E12-F028A
WO-92-0059	Dynamic MOVATS testing for 1E12-F064C

No violations or deviations were identified.

6. Engineered Safety Features System Walkdowns (71710)

In addition to routine observations made during regular plant tours, the inspectors conducted walkdowns of the accessible portions of selected safety-related systems. During this inspection period the inspectors conducted a walkdown of the residual heat removal (RHR) "A" and control room ventilation systems. The inspectors verified system operability through reviews of valve lineups, system prints, equipment conditions, and control room indications.

As a result of the walkdowns, the inspectors noted that the general condition of the systems was good. The systems were aligned in accordance with the appropriate lineup and the components were properly labeled. The inspectors concluded that the observed portions of the RHR "A" and the control room ventilation systems appeared capable of performing their respective safety functions.

No violations or deviations were identified.

7. Operational Safety Verification (71707)

The inspectors observed control room operations, reviewed applicable logs, and conducted discussions with control room operators during this inspection period. The inspectors verified the operability of selected emergency systems, reviewed tagout records, and verified tracking of limiting conditions for operation associated with affected components. Tours of the pump houses, control complex, the intermediate, auxiliary, reactor, radwaste, and turbine buildings were conducted to observe plant equipment conditions including potential fire hazards, fluid leaks, and excessive vibrations, and to verify that maintenance requests had been initiated for certain pieces of equipment in need of maintenance. The inspectors by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

The inspectors observed plant housekeeping, general plant cleanliness conditions, and verified implementation of radiation protection controls. In addition, the inspectors observed construction of the low level radioactive waste building.



a. Plant Shutdown Observations

On January 9, 1993, the reactor was shut down for a mid-cycle maintenance outage. The inspectors observed control room activities during the shutdown to assess procedural compliance, communications, and general operator control of the evolution. The inspectors noted that the operators appeared cognizant of changing plant parameters and maintained positive control of the shutdown. The inspectors concluded that observed operator performance during the shutdown was good. The operators were knowledgeable of expected plant parameters and performed the shutdown in a deliberate and well-controlled manner.

b. Shutdown Risk Management

The inspectors reviewed the licensee's planned activities for the mid-cycle maintenance outage to determine what actions or considerations were taken to maintain reliable decay heat removal and minimize shutdown risk. The licensee developed the outage schedule using Perry administrative procedure (PAP) 0115, "Outage Planning." That administrative procedure had guidelines regarding the minimum number of electrical power sources, emergency core cooling systems (ECCS), and decay heat removal systems desired during operational condition 5 (REFUELING).

Using the guidelines in PAP-0115, the outage schedule met or exceeded all technical specification (TS) requirements for operable AC power sources and ECCS. Daily outage planning meetings (twice a day) and control room pre-shift briefings (three times a day) identified the operable shutdown cooling system(s), AC power sources, ECCS train(s) available, and alternate decay heat removal methods. Contingency plans were developed for providing temporary alternate power to the fuel pool cooling and cleanup (FPCC) system when it was the alternate decay heat removal system. The materials necessary to implement the contingency plans (work orders, electrical cables, and other equipment) were in place prior to using FPCC for decay heat removal.

Based on the above review, the inspectors concluded that the licensee developed the outage schedule with adequate defense in depth to maintain reliable decay heat removal and minimize shutdown risk. Evidence of a conservative operating philosophy was observed in both the development and initial implementation of the schedule. The inspectors will continue to observe the licensee's management of shutdown risk and will document the observations in subsequent reports.

c. Solid Radwaste Crane Operation

On January 7, 1993, while conducting a routine inspection of the radwaste building, the inspectors noted that the solid radwaste overhead crane was being operated with two override switches mechanically held in the override position with adjustable wrenches. The inspectors informed licensee management of the observed poor operational practice and action was taken on



January 8 to prohibit operation of the crane with the switches mechanically overridden. Subsequently, on January 11, further management direction suspended the use of the solid radwaste overhead crane until the problems with the override switches were resolved.

The solid radwaste overhead crane, located in the radwaste building above the liner storage area, was used to move solid radioactive material storage containers. The crane was controlled remotely from the solid radwaste control panel located in a room adjacent to the liner storage area. The operator can monitor the movement of the crane in the storage area with the use of closed circuit television monitors. The override switches that were held in the override position with the adjustable wrenches were the hoist override and the bridge and trolley override switches. The hoist override allowed for raising and lowering of the hoist in fast speed. The bridge and trolley override allowed for lateral movement of the hoist in fast speed without the hoist being in the fully raised position. Due to equipment problems, the overrides did not function as designed. The hoist override actually worked backwards, in that when not in override, the hoist would raise or lower in fast speed. As a result, the operators mechanically held the switch in the override position with the wrench, so that they could better control the hoist in slow speed. The bridge and trolley override also did not function as designed. The hoist would not indicate the fully raised position, therefore the operators could not move the hoist laterally in fast speed unless the override switch was held in override.

Based on the licensee's preliminary investigation of this problem, the equipment problems associated with the hoist and the practice of using wrenches to hold the override switches have existed since the crane was pre-operationally tested. Though problems with the hoist were documented previously in engineering design change request (EDCR)-880071 and condition report (CR)-89-0058, no action was taken to correct the deficiencies. In addition, on December 7, 1992, a licensee manager identified the use of wrenches on the override switches as a problem. Though the problem was noted, no action was taken to correct the problem. The responsible manager for the radwaste crane was informed of the deficiency observed by the manager on January 7, at approximately the same time the inspectors identified the problem.

The use of adjustable wrenches to maintain override switches in the override position concerned the inspectors because it was a poor operating practice. Of further concern was the long period of time, approximately 5 years, that the crane had been operated with equipment problems without corrective action being taken to repair the deficiencies. In addition, since the radwaste facility was routinely used to train non-licensed operators, the practice of using wrenches to override switches was not consistent with good operating techniques that are vital to the safe performance of plant activities. The licensee initiated condition report CR-93-011 to document investigation results and track corrective action efforts. At the end of this inspection period, licensee

efforts were in progress to incorporate permanent repairs to the radwaste hoist and the control panel to correct design and equipment problems. The inspectors will review the results of the licensee's investigation and assess the adequacy of licensee corrective actions in a future inspection report.

d. Residual Heat Removal Strainers

On May 22, 1992, during the third refueling outage (RF-03), an inspection of the suppression pool floor and all suction strainers was performed by the licensee utilizing an underwater video camera mounted on a robotic submarine. During this inspection, debris was noted on the suppression pool floor and on the residual heat removal (RHR) "A" and "B" suction strainers. In addition, the strainers were observed to be slightly deformed in that the strainer screen was concave between the stiffener plates. The RHR strainers were conical type strainers with internal cross pattern stiffener plates. The strainer deformation was noted by the engineering staff but no documented engineering evaluation was conducted. Concerning the debris on the strainers, the licensee concluded that cleaning the strainers could be deferred. Two WOs (92-3157 and 92-3158) were generated on July 29 to clean the strainers after RF-03. On September 3 the WOs were deferred until the next refueling outage due to safety concerns of cleaning the strainers while the plant was operating at power. These safety concerns were not recognized by the licensee when the strainer cleaning was deferred from RF-03 to a post outage timeframe.

On January 16 and 18, during the mid-cycle maintenance outage, the strainers were cleaned with high pressure water. During post cleaning inspection of the strainers using a high powered underwater light, the system engineer again noted that the RHR "A" and "B" strainers were concave between the internal stiffeners. As a result, two nonconformance reports, NR 93-S-016 and NR 93-S-017, were initiated to document and evaluate the deformation. The nonconformance report evaluations dispositioned the strainers as "use-as-is." The disposition was based on observed structural integrity of the strainers and the assessment that the strainers were still capable of performing their intended function of preventing 3/32-inch particles or larger from entering their respective RHR pumps. The cause for the deformation was determined to be high differential pressure across the strainer due to excessive debris on the strainer during pump operation. Condition report CR 93-022 was initiated to investigate the root cause and provide recommendations to prevent recurrence.

The inspectors reviewed licensee documentation, interviewed engineering staff personnel, and observed the videotape of the May 22, 1992, suppression pool inspection. Based on the observation of debris on the strainers and suppression pool floor and the resultant deformation of the suction strainers due to debris buildup, the inspectors were concerned that the potential existed for strainer clogging. To address the inspectors concerns, and in response to condition report CR 93-022, an engineering report was assembled summarizing RHR strainer

performance. The licensee reviewed RHR pump suction pressure and strainer differential pressure historical data to determine if a trend of declining pump performance occurred. Based on review of this data, a slightly decreasing trend in pump suction pressure was indicated. In addition, after strainer cleaning in July 1989, suction pressure dropped further. Though suction pressure indicated a declining trend, the minimum net positive suction head (NPSH) requirements for the RHR pumps were met. The minimum dynamic suction pressure obtained was 5.6 psig, equivalent to approximately 13.2 feet of water. The minimum NPSH required by the RHR pump manufacturer was approximately 4 feet of water from suction nozzle centerline.

Prior to completion of the mid-cycle maintenance outage, the licensee planned to vacuum the suppression pool floor and conduct an underwater inspection with a video camera of the RHR "A" and "B" strainers to document the as-left condition. In addition, pump performance surveillances were planned to evaluate the effect of strainer cleaning on pump suction pressure. The inspectors will review licensee investigation results and assess the adequacy of licensee corrective actions in a future inspection report.

No deviations or violations were identified.

8. Onsite followup of Events at Operating Power Reactors (93702)

a. General

The inspectors performed onsite followup activities for events which occurred during the inspection period. Followup inspection included one or more of the following: reviews of operating logs, procedures, and condition reports; direct observation of licensee actions; and interviews of licensee personnel. For each event, the inspectors reviewed one or more of the following: the sequence of actions, the functioning of safety systems required by plant conditions, licensee actions to verify consistency with plant procedures and license conditions, and verification of the nature of the event. Additionally, in some cases, the inspectors verified that the licensee's investigation identified root causes of equipment malfunctions and/or personnel errors and the licensee was taking or had taken appropriate corrective actions. Details of the events and licensee corrective actions noted during the inspector's followup are provided below.

b. Details

(1) Reactor Water Cleanup (RWCU) Isolation

On January 9, 1993, at about 6:00 p.m. (EST), with the reactor in operational condition 3 (HOT SHUTDOWN), an unexpected isolation of the RWCU system occurred. At the time of the event, a plant shutdown was in progress. The RWCU system was operating in "reduced feedwater temperature" mode when the RWCU high differential flow timer annunciator alarmed. Plant operators verified that an actual system



leak was not the reason for the high differential flow signal and attempted to isolate the RWCU system in accordance with plant procedures. The 45-second timer for the high differential flow signal timed out before the RWCU isolation valves stroked shut and a valid engineered safety feature (ESF) actuation occurred. The RWCU system was returned to service at approximately 7:50 p.m.

The licensee informed the NRC operations center of this event via the emergency notification system (ENS) at about 9:45 p.m. on January 9. The licensee initiated condition report CR 93-006 to document the investigation and corrective action taken. The licensee planned to submit an LER in accordance with 10 CFR 50.73. The inspectors will review that report in a future inspection period.

(2) Containment Purge Supply Penetration Leakage

On January 9, 1993, at about 11:19 p.m., with the reactor in HOT SHUTDOWN, the licensee discovered that the secondary containment bypass leakage technical specification (TS) limits were exceeded as a result of the failure of a local leak rate test (LLRT) of containment purge supply penetration V-313. At the time of the event, a plant shutdown was in progress. The licensee entered TS 3.0.3 and continued to shut down in accordance with plant procedures. The plant entered operational condition 4 (COLD SHUTDOWN) at 11:52 p.m. and exited TS 3.0.3.

The licensee informed the NRC operations center of this event via the emergency notification system (ENS) at about 11:26 p.m. on January 9. The licensee initiated condition report CR 93-007 to document the investigation and corrective action taken. The licensee planned to submit an LER in accordance with 10 CFR 50.73. The inspectors will review that report in a future inspection period. In addition, the inspectors will assess the adequacy of the licensee's corrective actions for the recent failures of penetration V-313. The penetration failed a LLRT on November 5, 1992, as documented in IR 50/440-92022(DRP) and LER 50/440-92022-00.

(3) Excessive Leakage Through Main Steam Isolation Valve (MSIV) Penetrations

On January 12, 1993, at 1:50 p.m., while in COLD SHUTDOWN for a refueling outage, the licensee identified MSIV penetration leakage in excess of technical specification limits (25 standard cubic feet per hour (SCFH)). As noted in licensee condition report CR 93-012, the "A" main steam line containment penetration failed to meet the 25 SCFH acceptance criteria when tested in accordance with the applicable test procedure. Subsequently, the "D" MSIV penetration and the "B" MSIV penetration also failed to meet the 25 SCFH acceptance criteria. The licensee initiated



corrective action to troubleshoot and repair the leakage paths. Inspection of the licensee's leak-rate test performance for the subject MSIV penetrations was performed by an NRC Region III specialist. The results of that inspection were to be documented in Inspection Report 50-440/93002(DRS).

The licensee initially notified the NRC Operations Center of this event via the ENS at about 3:00 p.m. on January 19, 1993.

(4) Reactor Fuel Rod Leakage

During the mid-cycle maintenance outage, the licensee conducted an inspection of all 748 fuel bundles in the reactor vessel as a result of indications of leaking fuel (previously documented in Inspection Report 50-440/92024(DRP), dated January 21, 1993). As a result of these inspections, a 24-inch crack was identified on one of the fuel rods. In addition, the inspection effort initially identified up to 62 fuel bundles that indicated potential leakage. The licensee notified the NRC Operations Center via the ENS at approximately 10:10 a.m. on January 19, 1993, of the significant number of fuel bundles that were being evaluated as potential leakers.

On January 21 and 22, three regional inspectors and one headquarters inspector conducted an inspection of licensee fuel inspection activities. The inspectors interviewed licensee and vendor personnel, observed fuel inspection activities, and reviewed fuel inspection results. The inspectors concluded that the licensee's efforts were conducted in accordance with procedures and that inspection equipment appeared to be operating properly.

At the end of this inspection period, based on re-inspection of the 62 suspect fuel bundles, nine fuel bundles remained unresolved, in that the fuel inspection results were still under evaluation. The inspectors assessment of licensee efforts in determining the root cause for the confirmed fuel failures and review of the disposition of the nine unresolved fuel bundles will be documented in Inspection Report 50-440/93003(DRS).

(5) Inoperable Containment Isolation Valve 1B21-F0019

On January 21, 1993, at about 5:15 a.m., with the reactor in operational condition 5 (REFUELING), the licensee identified a potential operability concern with the motor operator on the inboard MSIV drain line outboard isolation valve 1B21-F0019. During valve testing, the licensee determined that the torque switch in the motor operator for valve 1B21-F0019 opened when the thrust applied to close the valve was 2526 pounds. The design thrust required to close the valve was 5284 pounds. As a result, the ability of the

corrective action to troubleshoot and repair the leakage paths. Inspection of the licensee's leak-rate test performance for the subject MSIV penetrations was performed by an NRC Region III specialist. The results of that inspection were to be documented in Inspection Report 50-440/93002(DRS).

The licensee initially notified the NRC Operations Center of this event via the ENS at about 3:00 p.m. on January 19, 1993.

(4) Reactor Fuel Rod Leakage

During the mid-cycle maintenance outage, the licensee conducted an inspection of all 748 fuel bundles in the reactor vessel as a result of indications of leaking fuel (previously documented in Inspection Report 50-440/92024(DRP), dated January 21, 1993). As a result of these inspections, a 24-inch crack was identified on one of the fuel rods. In addition, the inspection effort initially identified up to 62 fuel bundles that indicated potential leakage. The licensee notified the NRC Operations Center via the ENS at approximately 10:10 a.m. on January 19, 1993, of the significant number of fuel bundles that were being evaluated as potential leakers.

On January 21 and 22, three regional inspectors and one headquarters inspector conducted an inspection of licensee fuel inspection activities. The inspectors interviewed licensee and vendor personnel, observed fuel inspection activities, and reviewed fuel inspection results. The inspectors concluded that the licensee's efforts were conducted in accordance with procedures and that inspection equipment appeared to be operating properly.

At the end of this inspection period, based on re-inspection of the 62 suspect fuel bundles, nine fuel bundles remained unresolved, in that the fuel inspection results were still under evaluation. The inspectors assessment of licensee efforts in determining the root cause for the confirmed fuel failures and review of the disposition of the nine unresolved fuel bundles will be documented in Inspection Report 50-440/93003(DRS).

(5) Inoperable Containment Isolation Valve 1B21-F0019

On January 21, 1993, at about 5:15 a.m., with the reactor in operational condition 5 (REFUELING), the licensee identified a potential operability concern with the motor operator on the inboard MSIV drain line outboard isolation valve 1B21-F0019. During valve testing, the licensee determined that the torque switch in the motor operator for valve 1B21-F0019 opened when the thrust applied to close the valve was 2526 pounds. The design thrust required to close the valve was 5284 pounds. As a result, the ability of the

valve to isolate under design conditions was evaluated as indeterminate.

The licensee informed the NRC operations center of this event via the emergency notification system (ENS) at about 5:52 a.m. on January 22. The licensee initiated condition report CR 93-018 to document the investigation and corrective action taken. The licensee planned to submit an LER in accordance with 10 CFR 50.73. The inspectors will review that report in a future inspection period.

No violations or deviations were identified.

9. Exit Interviews

The inspectors met with the licensee representatives denoted in paragraph 1 throughout the inspection period and on January 31, 1993. The inspectors summarized the scope and results of the inspection and discussed the likely content of the inspection report. The licensee did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.

During the report period, the inspectors attended the following exit interview:

<u>Inspector</u>	<u>Exit Date</u>
M. Kunowski	1/9/93