U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-255/92015(DRP)

Docket No. 50-255 License No. DPR-20

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Palisades Nuclear Generating Plant

Inspection At: Palisades Site, Covert, MI

Inspection Conducted: March 10 through April 20, 1992

Inspectors: J. K. Heller
J. R. Roton

Approved By: W P Shafer for
B. L. Jorgensen, Chief
Reactor Projects Section 2A

5/8/92
Date

Inspection Summary

Inspection from March 10 through April 20, 1992 (Report No. 50-255/92015(DRP))
Areas Inspected: Routine unannounced inspection by the resident inspectors of actions on previously identified items, plant safety verification, loss of shutdown cooling, ESF actuations, radiological controls, outages, reportable events, NRC Region III requests, and meeting with the public. No Safety Issues Management System (SIMS) items were reviewed.

Results: Of the nine areas inspected, no violations or deviations were identified in six areas. One violation was identified (failure to implement procedures - Paragraphs 2. 4 and 5) with a total of five examples among the remaining three areas.

The strengths, weaknesses and violation are discussed in paragraph 9, "Management Interview."

DETAILS

1. Persons Contacted

Consumers Power Company

G. B. Slade, Plant General Manager
*R. D. Orosz, Nuclear Engineering & Maintenance Manager
R. M. Rice, Plant Operations Manager
D. J. VandeWalle, Engineering Programs Manager
*P. M. Donnelly, Safety & Licensing Director
K. M. Haas, Radiological Services Manager
K. A. Toner, Electrical/I&C/Computer Engineering Manager
*J. L. Hanson, Operations Superintendent
*R. B. Kasper, Maintenance Superintendent
*K. E. Osborne, System Engineering Superintendent
D. D. Hice, Chemistry Superintendent
L. J. Kenaga, Health Physics Superintendent
*C. S. Kozup, Technical Engineer
W. L. Roberts, Senior Licensing Analyst
R. W. Smedley, Staff Licensing Engineer
T. A. Buczwinski, Reactor & Thermal Hydraulic Engineering Manager
*T. J. Palmisano, Administrative & Planning Manager

Nuclear Regulatory Commission (NRC)

*J. K. Heller, Senior Resident Inspector
*J. R. Roton, Resident Inspector
S. Sanders, Intern (NRR)

*Denotes some of those present at the Management Interview on April 27, 1992.

Other members of the plant staff, and several members of the contract security force, were also contacted during the inspection period.

2. Actions on Previously Identified Items (92701, 92702)

(Closed) Unresolved Item 255/92006-02: Head removal and Upper Guide Structure (UGS) removal.

This unresolved item addressed several procedural compliance problems pertaining to the removal of the reactor vessel head and UGS. The procedures controlling these activities were RVG-M-2, "Removal of Reactor Vessel Head" and RVI-M-1, "Removal of the Upper Guide Structure (UGS)." Both required documentation of load cell calibration (Steps 3.7.2 and 3.2.2 respectively). This step was annotated "N/A" by the contractor performing the evolution.

Both procedures specified a maximum lifting weight, (Steps 5.19.15 and 5.3.4 respectively) and both required that the lift be secured and an evaluation be performed for interference (Steps 5.19.15 and 5.3.4

respectively) if the specified weight was exceeded. In both cases, the maximum weight was exceeded prior to unseating the components. The contractor continued with the lift until the component was unseated, then performed an "on-the-spot" evaluation prior to proceeding with the lifts. The "on-the-spot" evaluation for the head lift did not consider or address the fact that the maximum specified weight was the crane design rating and that the indicated load had exceeded this rating. The decision to continue with both lifts was made by the contractor without approval by the licensee.

These failures to implement the procedures, as discussed above, are considered examples of a violation of 10 CFR 50, Appendix B, Criterion V (examples a & b) in the Notice of Violation (255/92015-1a and 1b(DRP)).

Two violation examples, no deviations, unresolved items, or open items were identified.

3. Operational Safety Verification (71707, 71710, 42700)

Routine facility operating activities, plant startup and power accession were observed as conducted in the plant (turbine building, auxiliary building and containment) and in the main control room.

The performance of reactor operators, senior reactor operators, shift engineers, and auxiliary equipment operators was observed and evaluated. Included in the review were procedural use and adherence, records and logs, communications, shift/duty turnover, and the degree of professionalism of control room activities.

Observations of the control room monitors, indicators, and recorders were made to verify the operability of emergency systems, radiation monitoring systems, and nuclear reactor protection systems. Reviews of surveillance, equipment condition, and tagout logs were conducted. Proper return to service of selected components was verified.

a. General

The licensee began the reporting period in cold shutdown with fuel moves in progress. The licensee completed the fuel moves and the post-outage testing required to return the plant to service. At the conclusion of this reporting period, the plant was at power.

b. Criticality

The unit went critical on April 14. This completed the refueling outage and started the low power physics testing portion of the startup program. The estimated critical rod height and boron concentration were within the predicted target band.

c. Tours

(1) Tours of the control room were routinely made. During these visits the inspector observed that staffing requirements were always met, operators were cognizant of changing plant conditions, the equipment status board and the LCO board were maintained up-to-date, and the operators were performing assigned tasks in accordance with plant procedures. Activities observed were:

(a) Plant heatup (Cold Shutdown to Hot Shutdown) per GOP 2.

(b) Hot Shutdown to critical in Hot Standby per GOP 3.

(c) Power escalation after synchronization per GOP 5.

(2) The inspector routinely toured the containment during the outage. Some tours were performed with members of the plant staff. Most observations were minor and were resolved when identified.

(a) The inspector noted that a problem (identified during the previous refueling outage) pertaining to dirt/dust below a grating next to the primary coolant pump and in other places throughout the containment had been resolved.

(b) The inspector found an assortment of lighting configurations which consisted of some lights with a metal protective cage, some with protective explosive covers and others with both configurations or neither. The inspector discussed the variety of configurations with electrical maintenance personnel and was informed that the problem had been previously identified and a program was ongoing to make the lighting configuration consistent.

(c) The inspector found that tape was still being used to patch a small crack in the head ventilation duct. This item was documented in Inspection Report 255/91005(DRP). The report stated the tape was removed and that the duct would be replaced during the next refueling outage. This was discussed at the exit interview.

(3) Tours of the auxiliary and turbine building were routinely performed. Most were performed without the presence of the licensee staff. Minor observations were identified and resolved.

(4) In all areas of the containment, turbine building and auxiliary building toured, the inspector noted that the degree of cleanliness continued to improve.

d. The inspector reviewed the licensee's program for refueling startup testing. The licensee had prepared a startup test plan to assure that appropriate plant groups and the Plant Review Committee (PRC) were in agreement that plant mode changes could be made. The test plan identified the tests that required onshift management support. During the morning meetings, plant management stressed that quality was important and that delays in the schedule were acceptable to ensure quality. At several preshift briefings the plant manager stressed that licensed personnel had the obligation to slow or stop a test or activity if unsure of the test procedure or results. Additionally the operations group preplanned activities and established plant conditions on dayshift to support backshift testing.

No violations, deviations, unresolved items, or open items were identified.

4. Loss of Power to the "C" Safeguards Bus

The licensee lost power to the "C" safeguards bus on March 27, at 10:26 p.m., during trouble shooting activities of the supply power breaker. This cascaded to a five minute loss of shutdown cooling.

The plant was in cold shutdown with shutdown cooling supplied by equipment powered from the "C" safeguards bus. The reactor vessel head was installed with the stud/nuts torqued. Activities were underway to restore the openings in the head at the time of the event. The primary coolant system (PCS) water level was at the vessel flange. The PCS water temperature started at 89 degrees F with the highest observed temperature increase of approximately 6 degrees F based on an average of the two operating core thermocouples. The other train of shutdown cooling was available.

Several shifts before the event, the "C" safeguards bus supply breaker charging motor had been found running continuously. WOs 24101456 and 24103832 were written to resolve the problem. The problem breaker was removed from service and a spare breaker was installed. Corrective maintenance was performed on the breaker that was removed.

During the "B" shift on March 27, an electrical lineup was established to permit testing of the problem breaker. The lineup also realigned the shut down cooling system to the train supplied by the "D" safeguards bus. When the repaired breaker was racked in, the charging motor still ran continuously. The breaker was removed, the spare breaker reinstalled and shutdown cooling realigned to the train supplied by the "C" safeguards bus to facilitate testing on the "D" safeguards bus scheduled for the next day.

During the "C" shift on March 27, a second breaker repair was performed. To determine if the repair was successful the shift supervisor authorized installation of the breaker to the "connect" position. This activity was not approved by outage management nor was it scheduled to be performed or needed to be performed to support any planned activity. Additionally, this electrical lineup was not described on the daily plant status sheet.

The shift supervisor authorized alignment of the alternate power supply breaker, but did not realign the shutdown cooling system back to the train supplied by the "D" safeguards bus. The auxiliary operator installed the charging motor fuses, but not the control power fuses. The auxiliary operator then installed the breaker to the "connect" position and notified the control room that this action had been performed. The electrician and his supervisor realigned the breaker from the "connect" position to the "test" position and then closed the breaker. This activity was performed without permission of the shift supervisor.

With the breaker in the "test" position all logic circuits were active. Closure of the bus supply breaker with the breaker in the "test" position resulted in deenergization of the bus because the logic caused an automatic transfer to the breaker in "test." Since the primary supply breaker was in the "test" position, power was lost to the bus.

Both diesel generators started. The "D" safeguard bus remained powered, which meant the dedicated diesel generator idled until it was manually secured. Since power was interrupted to the "C" safeguards bus the load sequencer was activated. However, with the control power fuses not installed, the breaker did not automatically open and permit automatic closure of the dedicated diesel generator output breaker onto the bus. The operators chose to resolve the problem by placing the synchronizing switch to parallel which permitted the diesel generator output breaker to close and power the "C" safeguards bus. The associated cooling pump was manually started and shutdown cooling established. The 5-minute duration did not seem unreasonable to diagnose the problem and implement correction action.

The licensee declared an emergency plan "Unusual Event" when shutdown cooling was lost and exited the condition when shutdown cooling was reestablished. Based on the information available, the emergency plan declaration was conservative.

The inspector interviewed the shift supervisor. He knew the consequences of testing the incoming supply breaker while in the test position. In fact, he referenced the lesson learned from a similiar event that occurred during the last outage.

There were at least two errors associated with this event. The first pertained to a shift management error when the shift supervisor authorized the breaker test without establishing the proper conditions to ensure continued operation of the shutdown cooling system. The

second occurred when the electrician, with the concurrence of his supervisor, placed the breaker in the "test" position and cycled the breaker. There was a laminated tag affixed to the outside of the cubicle door and a second tag affixed to the inside of the cabinet that specified, "BREAKER TESTING REQUIREMENTS ARE SPECIFIED IN ADMIN PROC 4.02."

Administrative Procedure 4.02, "Control of Equipment Status," paragraph 10.3.1, stated that Bus supply breakers are not to be cycled in the "test" position because operation in this configuration will result in deenergization of the respective bus. Failure to test the breaker, as described in Administrative Procedure 4.02, is a violation of 10 CFR 50, Appendix B as discussed (example c) in the Notice of Violation (255/92015-1c(DRP)).

One violation example, no deviations, and no unresolved items, or open items were identified.

5. Inadvertent Actuation of the Engineered Safeguards Systems (93702)

During this reporting period, the licensee experienced various inadvertent and spurious actuations of the Engineered Safeguards System (ESF). The inspector performed a preliminary review and will perform additional reviews when the Licensee Event Reports are issued. A chronological listing of those actuations follows:

a. March 15, at 6:18 p.m. (EST) - Spurious actuation of the left channel of containment isolation received from RIA-2136.

   Although the alarm/trip set point was 25 mR/hr, radiological protection workers in the area reported dose rates of 8-10 mR/hr. This instrument had been placed in service to support removal of the Upper Guide Structure. The detector was immediately removed from service and recalibrated. Additionally, a replacement detector for RE-2136 was calibrated. RIA-2136 and RE-2136 were installed and a loop calibration check was performed several times prior to returning the components to service. The root cause of the spurious Left Channel Containment Isolation actuation is unknown.

b. April 2, at 10:02 a.m. (EST) - Inadvertent actuation of Left Channel Safety Injection.

   While I&C Technicians were installing equipment to facilitate performance of Technical Specification Test RT-13A "Normal Shutdown Sequencer Test - Left Channel" the left channel Design Basis Accident (DBA) sequencer actuated. This actuation occurred while technicians were connecting the Amphenol plugs on the test cables to their matching plugs on the sequencer. Plugs #1 and #2 were reversed by the I&C Technicians performing the connection.

Failure of the technicians to install the test plugs per Section 5 of RT-13A, is considered a violation of 10 CFR 50, Appendix B, Criterion V as discussed (example d) in the Notice of Violation (255/92015-1d(DRP)).

c. April 3, at 10:55 p.m. (EST) - Inadvertent actuation of both diesel-generators due to a premature bus undervoltage condition on bus "1C."

While performing Special Test T-325, "Timing of Emergency Diesel Generator 1-1 Start Sequence," the potential transformer (PT) drawer secondary contacts apparently opened momentarily, generating a second level undervoltage actuation and causing both diesel generators to start. The root cause of this event appeared to be the momentary opening of the PT drawer which was normally held shut by two latching devices. The reason for this apparent contact opening was still being evaluated by the licensee.

d. April 4, at 8:15 p.m. (EST) - Inadvertent actuation of Left Channel Normal Shutdown Sequencer.

While performing Special Test T-325, "Timing of Emergency Diesel Generator 1-1 Start Sequence," an operator opened the output breaker of Diesel Generator 1-1 without first paralleling the alternate power supply to the "1C" bus as required by Standard Operating Procedure 22, Section 7.5.4. This resulted in deenergization of bus "1C", the re-closing of the diesel generator 1-1 output breaker, and activation of the Left Channel Normal Shutdown Sequencer. The root cause of this event was personnel error. Failure of the operator to first parallel an alternate power supply prior to opening the 1-1 diesel generator output breaker, in accordance with Standard Operating Procedure 22, section 7.5.4, is considered a violation of 10 CFR 50, Appendix B, Criterion V as discussed (example e) in the Notice of Violation (255/92015-1e(DRP)).

e. On April 6, at 2:10 a.m. (EST) - Inadvertent actuation of Right Channel SIS-X relays.

Technical Specification Test RT-8D "Engineered Safeguards System - Right Channel" specifies manual insertion of an undervoltage signal before insertion of the SIS signal. However, timing of the manual action was not clearly stated. In this case, the SIS signal was inserted before the bus voltage had decayed. Therefore, offsite power was sensed to be available, which caused the activation of the SIS-X relays. The actuation of the SIS-X relays caused the loss of bus "1E" and bus 77, which was not planned. After several seconds, the undervoltage condition was seen and load shed followed by DBA sequencer operation occurred as expected. This event appears to be a technique problem which may warrant enhancement of the procedure.

The inspector has reviewed this item and determined that the reportablility determination required a detailed system knowledge and a strong knowledge of the reporting requirements. The inspector has no additional questions at this time but will evaluate this when the Licensee Event Report is issued.

The last four actuations occurred over a relatively short time frame and were the subject of a licensee initiated call to Region III.

Two violation examples and no deviations, unresolved items, or open items were identified.

6. Radiological Controls (71707)

During routine tours of the radiologically controlled areas and during interviews with plant personnel, the inspector observed occupational radiation safety practices by the radiation protection staff and other workers. The items listed below were reviewed and discussed with Region III personnel.

a. During a containment tour, the licensee's radiation protection personnel found a high radiation door with a small portion of the wire mesh covering cut. A check of the area and a review of the dosimetry records did not identify any unusual conditions. It was unclear if anyone entered the area and, if they had, what was their intention. The inspector observed the door on the day of discovery and confirmed that the mesh had been cut and that compensatory measures were implemented. Additionally, during a subsequent tour, the inspector verified that permanent repairs were made. This information was provided to Region III radiation protection and security specialists.

b. The licensee found a ten micro-curie hotspot above the eye of a person working in the refueling cavity. The licensee determined that this would not constitute a whole body exposure in excess of the regulatory limits. This information was provided to Region III radiation protection specialists.

c. The inspector briefly looked at the chemically induced source term reduction program implemented at the beginning of the outage. The inspector was informed that approximately 860 curies were removed of which 750 curies were Cobalt 58. Approximately 2.3 pounds of nickel was removed. A communication error occurred which resulted in placement of the wrong demineralizer in service and a reduction of the activity removed. This information was provided to Region III radiation protection specialists.

No violations, deviations, unresolved items or open items were identified.

7. Outages (37700, 42700, 60705, 60710, 61701, 61715, 86700)
The licensee completed their 1992 refueling outage on April 19, 1992.

Prior to leaving cold shutdown, the licensee resolved two issues which precluded them from changing modes.

a. Dropped fuel pin

At 08:10 a.m. on March 10, a contractor performing fuel assembly reconstitution in the Spent Fuel Pool (SFP) dropped a fuel pin from fuel assembly L-059. The pin ended up lying horizonally in a NE orientation from the fuel inspection elevator. The licensee suspended fuel reconstitution activities until a fuel pin recovery plan was approved and the reason for the pin drop evaluated. In addition, the licensee stopped fuel moves in the SFP until it was confirmed that the pin did not interfere with fuel moves.

The licensee performed the appropriate steps of Off Normal Procedure (ONP) 11.2 "Fuel Handling Accident" until it was confirmed that there was not an increase in airborne or radiation activity in the SFP. The licensee reviewed the emergency plan and determined that this event did not require an emergency plan classification.

The pin was retrieved without incident. It was dropped after it had been removed from the fuel assembly. After he inspected it, the contractor did not move the pin far enough away from the elevator while the elevator was being raised. The pin caught on the top lip of the elevator and dropped when the pin exceeded the maximum angle of engagement for the removal tool. A replacement pin was installed in the fuel assembly. During a subsequent inspection, the licensee determined that the wrong pin had been removed because of a communication error when identifying and transporting the assembly from the refueling cavity to the spent fuel pool. The correct pin was removed and a new pin installed.

b. Diesel Generators

(1) In response to an event at Calvert Cliffs, the licensee reviewed the design of their Design Basis Accident (DBA) sequencer for the diesel generator and discovered that, in the case of the 1-1 diesel, several loads could be sequenced at the same time. This could cause the diesel generator to trip on over-current. The DBA sequencer for the 1-1 diesel generator sends permissive start signals to two of the three containment spray pumps (P-54C and P-54B). Should these pumps subsequently receive a Containment High Pressure (CHP) signal - the second signal required to start the pumps - at the same time another component was sequencing on, the diesel could trip and the generator breaker "lock-out." In response to this condition, a modification to the DBA sequencer was made which prevents the simultaneous start of both containment spray pumps upon receipt of a CHP signal.

The problem did not apply to the 1-2 diesel generator. Either diesel can sustain simultanious starting of a single spray pump and one other component.

(2) The diesel generator room ventilation system may not be able to maintain the room temperature below 104 degrees F. One ventilation fan can maintain the room temperature below 104 degrees F with [illegible]tside ambient air temperature of 75 degree[illegible] F or l[illegible]oth ventilation fans would be required to operate with [illegible]ent air temperatures above 75 degrees F. The FSAR stated the design outside air temperature is 95 degrees F. This equates to a room temperature of 110 degrees F with both fans running. An evaluation of the ventilation system will be performed and will be discussed with the NRC if an operability problem exists.

Only one of two ventilation fans in each room was on a vital power supply. Diesel generator room ventilation fans V24B and V24D are non-class "1E" loads powered from 480 volt motor control centers (MCC) no. 7 and 8, respectively. When ambient temperatures reach 75 degrees F and the diesel is running, Standard Operating Procedure 22 requires MCCs 7 and 8 to be stripped of their non-essential loads and fed directly from their respective diesel, providing dedicated power to the non-class "1E" fans. This is an interim solution. The licensee is still evaluating the design basis of the ventilation system and continues to evaluate long-term resolution of this problem. This is an open item (255/92015-02(DRP)) pending further review of the evaluation.

The licensee's resolution of the first issue demonstrated its ability to resolve technical issues in a timely manner and demonstrated a conservative operating philosophy.

One open item was identified. No violations, deviations, or unresolved items were identified.

8. Reportable Events(92700, 92720)

The inspector reviewed the following Licensee Event Reports (LERs) for compliance to reporting requirements and, as applicable, for implementation of appropriate corrective actions.

a. (Closed) LER 255/90018: Inadequate Flows Through PCS Hot Leg Injection Check Valves, Revision 1.

Inadequate flow through Hot Leg Injection (HLI) check valves (CK-ES-3408, 3409 and 3410) was observed during the performance of test procedure RO-65, "HPSI/LPSI Check Valve Test." In 1988, a modification was performed on these valves to address a similar reduced flow problem. At that time, RO-65 was performed three

times with satisfactory results. Following this event, Universal Testing Laboratories investigated the root cause of the inadequate flow through these HLI check valves and concluded that this particular type of valve was not designed for the application for which it was being used. These valves were subsequently replaced with swing check valves.

b. (Closed) LER 255/90012: Discrepancy In Safety Injection Tank Level Switch Settings.

c. (Closed) LER 255/91006: Failure to Compensate for Open Fire Barrier Seal, Revision 1.

d. (Closed) LER 255/91007: Unplanned Reactor Trip Caused by Inadequate Surveillance Procedure.

e. (Closed) LER 255/91008: Core Exit Thermocouple Inoperable for Greater than Seven Days.

This event was reported pursuant to the requirements of a Proposed Technical Specification, dated September 2, 1988. Table 3.17.4, Item 22, stated ". . . with the number of OPERABLE core exit thermocouple less than four per quadrant but greater than or equal to two per core quadrant . . . either restore the inoperable channel(s) to OPERABLE status within 7 days, (or) . . . submit a special report to the commission . . . outlining . . . the cause of the inoperability . . . and schedule for restoring the system to OPERABLE status." The inoperable thermocouple had been repaired and tested in three days; however, the work order had not been administratively reviewed by the Operations Department until April 17, 1991, eight days after the thermocouple had been declared inoperable. This event does not constitute a violation of the current Technical Specifications.

f. (Closed) LER 255/91012: Reactor Trip When "A" Channel Reactor Protective System TM/LP Bistable Was Inserted.

g. (Closed) LER 255/91015: Plant Trip Following Main Feedwater Pump Trip.

No violations, deviations, unresolved items, or open items were identified.

9. Region III Requests (92705)

a. Prompt criticality while transferring fuel

By request of the Region III Technical Support Staff, the potential of two fuel bundles achieving prompt criticality when placed in the fuel transfer carrier was examined. The licensee determined that prompt criticality was not an issue for any of the cycle 9 fuel assemblies but may be a problem for future refueling.

This was based on calculations accomplished by Siemens Nuclear Power Corporation, using the KENO Va. model and a 3.43 wt. percent enriched fuel bundle with a companion bundle enrichment between 1.0 and 3.43 wt. percent.

b. Containment Sump

In accordance with RIII direction, the inspector reviewed licensee records to confirm that the containment sump was inspected and cleaned, if required, during the refueling outage. Review of licensee records indicated that the sump was inspected by operations department personnel and did not require cleaning. The sump had been cleaned during each of the last two refueling outages.

c. Flukes 77 Series 2

The Fermi nuclear plant identified and reported a potential problem with the Fluke 77 series 2 portable meters. Apparently, the selector switch can create an internal short circuit when the scale is changed. This may have a negative effect on the equipment in test. This information was provided to the licensee.

No violations, deviations, unresolved items, or open items were identified.

10. Resident Inspector Meetings With the Public (RP 0952)

On March 17, the resident inspector was the guest speaker at a biweekly meeting of the local Beta Sigma Phi service chapter. The meeting was hosted by the Chapter President and held at a private residence. The purpose of the meeting was to discuss NRC inspection activities at the Palisades Nuclear Power Plant. The inspector showed the tape, "The NRC Story" and a general information tape of Palisades produced by Consumers Power Company. The presentation lasted approximately 45 minutes. The group consisted of several teachers, a principal, and several self-employed persons. The questions were non-technical in nature and ranged from fitness-for-duty to general questions on outage activities.

No violations, deviations, unresolved items, or open items were identified.

11. Management Interview (30703)

The inspectors met with licensee representatives - denoted in Paragraph 1 - on April 27, 1992, to discuss the scope and findings of this inspection. The likely informational content of the inspection report with regard to documents or processes reviewed by the inspectors was also discussed. The licensee did not identify any such documents or processes as proprietary.

Highlights of the exit interview are discussed below:

a. Strengths noted:

(1) Improved cleanliness standard (Paragraph 3.c.(4) - "Operation Safety Verification - Tours".)

(2) Management expectations pertaining to startup activity (Paragraph 3.d - "Operation Safety Verification".)

(3) Conservative emergency plan declaration (Paragraph 4 - "Loss of Power to the "C" Safeguards Bus.")

(4) Licensee initiated conference call to discuss the Engineered Safeguards System actuations (Paragraph 5 - "Inadvertent Actuation of the Engineered Safeguards System".)

(5) Corrective action for the diesel generator problems (Paragraph 7.b - "Outages - Diesel generators.")

(6) 10 CFR 50.72 notification of an ESF actuation demonstrating a strong knowledge of the system and of the reporting requirements (Paragraph 5.a - "Inadvertent Actuation of the Engineered Safeguards System".)

b. Weaknesses noted:

(1) The five procedural compliance problems were discussed (Paragraphs 2 - "Action on Previously identified Items", 4 - "Loss of Power to the "C" Safeguards Bus", 5 - "Inadvertent Actuation of the Engineered Safeguards System".)

(2) Use of duct tape to repair a flaw (Paragraph 3.c.(2).(c) - "Operation Safety Verification".)

(3) Shift judgement errors that contributed to the loss of shutdown cooling (Paragraph 4 - "Loss of Power to the "C" Safeguards Bus.")

(4) Dropped fuel pin (Paragraph 7.a - "Outages - Dropped fuel pin.")

c. The notice of violation was discussed.

d. The loss of shutdown cooling event was discussed (Paragraph 4 - "Loss of Power to the "C" Safeguards Bus.")

e. Information pertaining to Fluke 77 series 2 instruments (Paragraph 9.c - "Region III requests - Fluke 77 series 2.") The licensee stated that the Flukes have been withdrawn from service pending testing and evaluation of vendor information.

f. The potential ventilation problem with the diesel generator room and the need to establish early communication with the NRC if the room ventilation can not maintain the desired temperature with an elevated outside air temperature (Paragraph 7.b.(2) - "Outages - Diesel Generators.")