



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-338/88-22 and 50-339/88-22

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Docket Nos.: 50-338 and 50-339

License Nos.: NPF-4 and NPF-7

Facility Name: North Anna 1 and 2

Inspection Conducted: July 16 - August 19, 1988

Inspectors: *[Signature]*
J. L. Caldwell, Senior Resident Inspector

9/15/88
Date Signed

[Signature]
L. P. King, Resident Inspector

9/15/88
Date Signed

Approved by: *[Signature]*
F. S. Cantrell, Section Chief
Division of Reactor Projects

9/15/88
Date Signed

SUMMARY

Scope: This routine inspection by the resident inspectors involved the following areas: plant status, maintenance, surveillance, ESF walkdown, operational safety verification, operating reactor events, licensee event report (LER) followup, and licensee action on previous enforcement matters. During the performance of this inspection, the resident inspectors conducted reviews of the licensee's backshift operations on the following days - July 18, 25, 26, and August 1, 2, 4, 5, 7, 10, 11, and 12.

Results: Within the areas inspected, one violation was identified with three examples for failure to follow procedure, and one Inspector Followup Item (IFI).

(Open) IFI 338/88-22-01, followup on the cause of Unit 1 "C" main feedwater isolation valve failure to close (paragraph 3).

(Open) Violation 338/88-22-02, failure to follow a containment entry procedure with three examples (paragraph 6).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

M. Bowling, Assistant Station Manager
J. Downs, Superintendent, Administrative Services
*R. Driscoll, Quality Control Manager
R. Enfinger, Assistant Station Manager
G. Gordon, Electrical Supervisor
L. Hartz, Instrument Supervisor
D. Heacock, Superintendent, Technical Services
*G. Kane, Station Manager
M. Kansler, Superintendent, Maintenance
*T. Maddy, Supervisor, Security
T. Porter, Superintendent, Engineering
J. Stall, Superintendent, Operations
A. Stafford, Superintendent, Health Physics
F. Terminella, Quality Assurance Supervisor
D. Thomas, Mechanical Maintenance Supervisor
*D. VandeWalle, Corporate Licensing

Other licensee employees contacted included engineers, technicians, operators, mechanics, security force members, and office personnel.

*Attended exit interview

NRC Management Site Visit: M. Ernst, Deputy Regional Administrator; C. Hehl, Deputy Director, Division of Reactor Projects (DRP); B. Wilson, Chief, Reactor Projects Branch 2, DRP; H. Berkow, Director, Projects Directorate II-2, Nuclear Reactor Regulation (NRR); L. Engle, Project Manager, NRR; and C. Patell, Project Manager, NRR visited the North Anna site on July 27, 1988. The visit involved a tour of the station and the presentation of the SALP results to the licensee.

2. Plant Status

Unit 1

Unit 1 began the inspection period operating at approximately 100% power. On August 6, Unit 1 tripped from 100% power due to a steam flow/feed flow mismatch with a low water level in the "B" steam generator (S/G) (see section 7 for details). Prior to the trip, the unit had been operating at approximately 100% power since March 25, 1988. On August 8, the unit restarted and, following the secondary chemistry holds and instrumentation repairs, achieved 100% power on August 13. Unit 1 operated at approximately 100% power for the remainder of the inspection period.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

M. Bowling, Assistant Station Manager
J. Downs, Superintendent, Administrative Services
*R. Driscoll, Quality Control Manager
R. Enfinger, Assistant Station Manager
G. Gordon, Electrical Supervisor
L. Hartz, Instrument Supervisor
D. Heacock, Superintendent, Technical Services
*G. Kane, Station Manager
M. Kansler, Superintendent, Maintenance
*T. Maddy, Supervisor, Security
T. Porter, Superintendent, Engineering
J. Stall, Superintendent, Operations
A. Stafford, Superintendent, Health Physics
F. Terminella, Quality Assurance Supervisor
D. Thomas, Mechanical Maintenance Supervisor
*D. VandeWalle, Corporate Licensing

Other licensee employees contacted included engineers, technicians, operators, mechanics, security force members, and office personnel.

*Attended exit interview

NRC Management Site Visit: M. Ernst, Deputy Regional Administrator; C. Hehl, Deputy Director, Division of Reactor Projects (DRP); B. Wilson, Chief, Reactor Projects Branch 2, DRP; H. Berkow, Director, Projects Directorate II-2, Nuclear Reactor Regulation (NRR); L. Engle, Project Manager, NRR; and C. Patell, Project Manager, NRR visited the North Anna site on July 27, 1988. The visit involved a tour of the station and the presentation of the SALP results to the licensee.

2. Plant Status

Unit 1

Unit 1 began the inspection period operating at approximately 100% power. On August 6, Unit 1 tripped from 100% power due to a steam flow/feed flow mismatch with a low water level in the "B" steam generator (S/G) (see section 7 for details). Prior to the trip, the unit had been operating at approximately 100% power since March 25, 1988. On August 8, the unit restarted and, following the secondary chemistry holds and instrumentation repairs, achieved 100% power on August 10. Unit 1 operated at approximately 100% power for the remainder of the inspection period.

Unit 2

Unit 2 began and ended the inspection period operating at approximately 100% power.

Both Units

On July 18, the licensee requested and received discretionary enforcement from the NRC to allow them to exceed the Technical Specification (TS) containment temperature limit of 105 degrees Fahrenheit. At the time of the request, both containments were approximately 103 degrees Fahrenheit due to the inoperability of the mechanical chiller during an extended period of 95-100 degree weather. The licensee had submitted a TS amendment to the NRC in March 1988 to change the TS containment temperature limit to 120 degrees Fahrenheit. Based on this submittal, the NRC granted the licensee discretionary enforcement to allow the containment temperature to exceed 105 degrees Fahrenheit, but not to exceed 110 degrees Fahrenheit for the time necessary to repair the mechanical chiller. On July 19, the mechanical chiller was repaired. Technically, the discretionary enforcement was not required since only Unit 2 exceeded the 105 degree F limits and was returned to less than the limit well within the TS action statement time limit. Both units' containments are being maintained around 100 degrees.

On July 27, 1988, Region II and headquarters personnel presented the SALP results to the North Anna Station management and staff. The presentation was conducted at the site in the North Anna Information Center (NAIC) auditorium. The Virginia Electric and Power Company personnel who attended the presentation included J. Ferguson, President and C.E.O.; W. Stewart, Senior Vice President, Power Operations; D. Cruden, Vice President, Nuclear Operations; G. Kane, Station Manager, North Anna; R. Saunders, Manager, Nuclear Programs; J. Wilson, Manager, Nuclear Operations Support; N. Hardwick, Manager, Nuclear Licensing; R. Hardwick, Manager, Quality Assurance; R. Enfinger, Assistant Station Manager, North Anna; M. Bowling, Assistant Station Manager, North Anna, and approximately 150 other station and corporate personnel. NRC representatives are identified in paragraph 1.

3. Maintenance (62703)

Station maintenance activities affecting safety related systems and components were observed/reviewed to ascertain that the activities were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and in conformance with the Technical Specifications (TS).

On August 4, the inspectors witnessed the licensee adjust the inboard packing on motor driven auxiliary feedwater pump 2-FW-P-3A. The packing adjustment was performed per Mechanical Maintenance Procedure MMP-C-GP-1, Inspection and Repair of Safety Related Pumps in General. The only noted

problem was identified by the operator and mechanics performing the work. The outboard packing was also leaking excessively and needed adjustment. Since the work order only addressed the inboard packing adjustment, the mechanics were unable to adjust the outboard packing without violating procedures. The pump was secured, and a work request was initiated to adjust the outboard packing during the next scheduled pump operation. The leak was not of a nature to affect the operability of the pump. No other problems were noted.

On August 7, the inspectors witnessed portions of the MOVATS test of the "C" main feedwater line motor operated isolation valve. The maintenance, performed per Electrical Maintenance Procedure EMP-P-MOV-3, Predictive Analysis of MOVs, was necessary because the valve failed to fully close during the reactor trip that occurred the day before (see discussions of this event in the end of section 7). The electrician informed the inspectors that the valve's limit switches for both opening and closing were off and needed adjustment. The closing limit switch appears to be the cause of the valve failing to fully close when the automatic closure signal was received. No problems were identified with the performance of the maintenance. The inspector has requested the licensee provide information concerning the cause of limit switches being out of adjustment. This will be identified as Inspector Follow-up Item (IFI 338/88-22-01).

On August 11, the inspectors witnessed the calibration of feedwater flow instrument 1-FW-FI-1486 for the "B" main feedwater line per Instrument and Control Procedure ICP-FW-1-F-1486, SG 1B Feed Flow Protection Channel IV. The calibration was being performed because the feed flow indication in the control room was out of the TS required tolerance. Unit 1 was in the process of a startup at the time, and the licensee had placed the protection channel associated with the feed flow instrument in trip. The inspector observed that the technicians were unable to calibrate the instrument. Following the determination that the calibration procedure could not be completed successfully, the licensee attempted to repair the transmitter. This repair was also unsuccessful, consequently, the licensee replaced the feed flow transmitter, calibrated the new instrument, and placed the instrumentation back on line. No problems were identified by the inspector.

No violations or deviations were identified.

4. Surveillance (61726)

The inspectors observed/reviewed TS required testing and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation (LCO) were met, and that any deficiencies identified were properly reviewed and resolved.

The licensee informed the inspectors that on July 23, during the performance of 1-PT-31.7.2, Pressurizer Level Channel II (L-460) Functional Test, an automatic isolation of the charging system letdown line occurred. The licensee investigated the event and determined the cause of the isolation was an inadequate procedure. The procedure required the operator to place a defeat switch in the wrong position, and consequently, the automatic isolation of letdown occurred when the test signal was generated. Further investigation by the licensee determined that 1-PT-31.7.2 had recently been revised, and this was the first time the procedure had been used since the revision. A review showed that the switch position was correct in the previous procedure, consequently, the revision and subsequent inadequate review resulted in an inadequate procedure.

Following the letdown isolation, the operators were able to re-establish letdown without causing a transient on the unit. A review by the inspector did not identify any safety concerns relating to the event. However, TS 6.8.1.c requires that written procedures to be established, implemented, and maintained covering surveillance and test activities of safety related equipment. The failure of the licensee to establish and maintain an adequate procedure to perform a surveillance on the pressurizer level channel without resulting in automatic action is a violation of TS 6.8.1.c. Since this violation was identified, investigated, and corrected by the licensee and meets the criteria of 10 CFR 2, Appendix C, for licensee identification, this item will be considered a Licensee Identified Violation (LIV 338/88-22-03, Failure to Provide Adequate Test Procedure). LIVs are considered first-time occurrence violations which meet the NRC enforcement policy criteria for exemption from issuance of a Notice of Violation. These items are identified to allow for proper evaluation of corrective actions in the event that similar events occur in the future.

On July 25, the inspectors witnessed the surveillance test on the Unit 2 "B" component cooling water pump. The test was conducted per test procedure 2-PT-74.2B, Component Cooling Pump (2-CC-P-1B). The inspectors did not identify any problems associated with the performance of the test.

The licensee informed the inspectors that there was an inadvertent automatic start of the 2-CH-P-1A charging pump on July 26. This pump, which is also the high head safety injection (HHSI) pump, was automatically started due to a safety injection related undervoltage signal. The inadvertent start was caused by personnel error during the performance of surveillance test procedure 2-PT-36.9.1.J, Degraded Voltage/Loss of Voltage Functional Test, 2J Bus. The personnel error involved the improper reinstallation of the relay cover on relay 27C such that the contacts remained closed even after the relay was de-energized. This relay, 27C, which becomes energized on an undervoltage signal, or in this case, a test signal, will start the Unit 2 "A" and "C" charging pumps. Prior to the initiation of the test signal, the licensee placed the "A" charging pump in pull to lock, by procedure, to prevent the pump

from automatically starting. The "C" charging pump was already operating. Following the initiation of the test signal, test personnel verified that the relay 27C was energized, replaced the relay cover, and removed the test signal which de-energized relay 27C. The licensee took the "A" charging pump controller out of the pull to lock position. As soon as the controller was taken out of pull to lock, the Unit 2 "A" charging pump automatically started. The operator verified that this pump was not required to be operating, and secured the pump by placing the controller back in pull to lock.

The licensee investigated the event and found that the cover on relay 27C had been misaligned when it was reinstalled. Following the removal of the cover and proper reinstallation, the automatic start signal no longer existed. Using a similar relay, the licensee demonstrated to the inspectors the sequence of events which could lead to this situation. The licensee was able to install the relay cover in such a way to cause the relay contacts to remain closed even though the relay was not energized. The licensee determined the event to be reportable. A four-hour report was made and an LER was issued. The inspectors will followup on the corrective actions, and close out the issue during the review and close out of LER 88-02, Inadvertent Engineering Safety Features System Actuation.

On August 2, 1988, the inspectors witnessed test 2-PT-71.1, Steam Driven Auxiliary Feedwater Pump and Valve Test. The test was performed satisfactorily.

On August 17, the inspectors witnessed portions of the surveillance test on one of the hydrogen recombiners per 1-PT-68.1.2, Hydrogen Recombiner Functional Test 2-HC-HC-1. During the performance of the test, several problems were identified associated with non technical issues. The first problem involved steps 4.9.1, 4.9.2, 4.13, 4.14, 4.20, 4.21, 4.33, and 4.34 which identified the motor control switches for the blower and the cooling fan differently than the actual label plates. The second problem involved the placement of the master control switch (HS-1) in the start position, but the procedure did not take the switch out of start. The licensee corrected both of these discrepancies with a procedure deviation. The inspectors did not identify any other problems.

On August 18, the inspectors witnessed 2-PT-57.1A, which was the 2-SI-P-1A low head safety injection pump test. The test was performed satisfactorily.

No violations or deviations were identified.

5. ESF System Walkdown (71710)

The following selected ESF systems were verified operable by performing a walkdown of the accessible and essential portions of the systems on August 11, 1988. Using procedure 1-OP-21.9A, Valve Checkoff Control Room

Bottled Air Pressurization System, the resident inspector walked down the control room bottled air system. The following comments were noted:

- a. Fill connection sample valves 1-CA-33 and 2-CA-36 and, the pigtail isolation valves 2-CA-31-1 thru 2-CA-31-42 were observed not to be labeled.
- b. Bottles 1-CA-1-7, 1-CA-1-9, and 1-CA-1-10 are labeled out of sequence.

No violations or deviations were identified.

6. Operational Safety Verification (71707)

By observations during the inspection period, the inspectors verified that the control room manning requirements were being met. In addition, the inspectors observed shift turnover to verify that continuity of system status was maintained. The inspectors periodically questioned shift personnel relative to their awareness of plant conditions.

Through log review and plant tours, the inspectors verified compliance with selected TS and LCOs.

In the course of the monthly activities, the resident inspectors included a review of the licensee's physical security program. The performance of various shifts of the security force were observed in the conduct of daily activities to include: protected and vital areas access controls; searching of personnel, packages and vehicles; badge issuance and retrieval; escorting of visitors; patrols; and compensatory posts.

On a regular basis, radiation work permits (RWP) were reviewed and the specific work activity was monitored to assure the activities were being conducted per the RWPs. Selected radiation protection instruments were periodically checked and equipment operability and calibration frequency was verified.

The inspectors kept informed on a daily basis, of the overall status of both units and of any significant safety matter related to plant operations. Discussions were held with plant management and various members of the operating staff on a regular basis. Selected portions of operating logs and data sheets were reviewed daily.

The inspectors conducted various plant tours and made frequent visits to the control room. Observations included: witnessing work activities in progress; verifying the status of operating and standby safety systems and equipment; confirming valve positions, instrument and recorder readings, and annunciator alarms; and observing housekeeping.

On August 8, the inspector witnessed Unit 1 startup to criticality. No problems were encountered and the reactor was critical within the estimated critical position. On August 11, the inspectors witnessed the licensee increasing power above the 5% chemistry hold point and changing from Mode 2 into Mode 1. When the licensee reached approximately 12% power, just prior to placing the generator on line, Channel IV of the "B" feed flow instrumentation was determined to be inoperable. The licensee placed the protection channel in trip and decided to correct the instrument problem prior to placing the turbine generator on line (see the end of paragraph 3). During the repair of the feed flow instrument, the inspector observed that Channel III of the "C" steam flow instrumentation had failed low. Subsequently, the licensee placed the steam flow protection channel in trip. Also, during the time while the instrumentation was being repaired, the inspector observed the licensee vent pressure from the Primary Relief Tank (RPT) using Operating Procedure 1-OP-5.7.

On August 12, following the repair of the feedwater flow instrument, the licensee, after verifying that the problem with the steam flow instrument was not in the instrumentation, decided to continue with the startup with the steam flow protection channel in trip. With the unit at approximately 20 percent power, Channel III of "C" steam flow instrumentation came back into specification and was taken out of trip. The startup continued without further instrumentation problems. The licensee has written a work request for the "C" steam flow instrumentation to determine the cause of the problem. This work request will be performed during the next available outage.

On August 9, 1988, at 1618, a first aid emergency was declared at Unit 1 containment hatch. Unit 1 was in Mode 2 at less than 5 percent power. A contractor employee experienced heat exhaustion. He was administered oxygen and carried to the Health Physics office, where a nurse examined and released him to return to duty. The entry was made at 1528 by two health physics technicians and two contractor personnel to inject Furmanite into a leaky packing gland on a disc pressurization valve (RC-187) for the "A" cold leg isolation valve.

The inspector requested and received the maintenance history on 1-RC-187. The maintenance history indicates that 1-RC-187 had never had the packing replaced and the valve had not been scheduled to be repacked. Further review of the event by the inspectors revealed that two previous entries had been made to determine the problems identified with the valve. One entry identified the leak path and the other entry was an attempt to adjust the packing to stop the leak. After adjusting the packing as much as possible, the valve still leaked and a decision was made to inject Furmanite into the valve. A review of the containment entry procedures by the resident inspector indicated the following:

- a. Attachment 1 of Administrative Procedure (AP) 20.9, Containment Ingress and Egress, is a subatmospheric containment entry checklist. The resident obtained a copy of the checklist while the containment was being exited (on August 9). Only the portion of the checklist up to incore detectors tagged out was initialed. The inspector was told that several other steps had been completed but not signed off. Step 7.1 of the procedure requires that each department complete the applicable sections of attachment 1 as the steps are completed. The failure of the licensee to follow AP 20.9 and complete the checklist as required will be identified as a violation (338/88-22-02).
- b. In the entries made on August 8 at 0924 and 1618, the required wet bulb temperatures were not documented and the calculated stay times were not determined as required by step 7.14 of Administrative Procedure 20.9. The failure of the licensee to follow AP 20.9 will be identified as an additional example of violation (338/88-22-02).

7. Operating Reactor Events (93702)

The inspectors reviewed activities associated with the below listed reactor events. The review included determination of cause, safety significance, performance of personnel and systems, and corrective action. The inspectors examined instrument recordings, computer printouts, operations journal entries, scram reports, and had discussions with operations, maintenance and engineering support personnel as appropriate.

At 2257 on August 6, 1988, Unit 1 of the North Anna Power Station tripped due to a steam flow/feed flow mismatch with a coincident low steam generator (S/G) water level in the "B" S/G. Just prior to the reactor trip, the operators had placed the shunt reactors (additional inductive loads) in service at the request of the load dispatcher. These shunt reactors are loads directly off of the 34.5 kv buses which supply the emergency buses through the reserve station service transformers (RSST). Following the connection of the shunt reactors, the 34.5 kv buses decreased in voltage, and consequently, so did the 4160 volt emergency buses which are the secondary side of the RSSTs (34.5 kv/4.16 kv transformers). The design of the RSSTs include an automatic tap changer on the secondary (emergency bus) side of the transformer which will compensate for decreases in the primary side voltage by changing the taps necessary to maintain required voltage on the secondary side. However, in this case, the licensee determined that the automatic tap changer for the RSST supplying the Unit 1 J emergency bus did not operate. The 1 J bus sensed a degraded voltage and separated itself from the RSST. The 1 J emergency diesel generator (EDG) started and loaded onto the bus as designed.

The problem with the transfer of the 1 J emergency bus to the 1 J EDG in itself did not result in the reactor trip. However, some of the non-vital loads on the 1 J bus, which are shed during a degraded voltage situation, involve some secondary system steam valves which closed along with the

feedwater recirculation valves which resulted in a steam/feedwater transient. This transient resulted in a demand on the feedwater regulating valves to close. The "B" feedwater regulating valve failed to reopen resulting in the steam flow/feed flow mismatch and low S/G water level trip signal. An inspection by the licensee revealed that the "B" feedwater regulating valve stem had broken, separating the disc from the actuator. Consequently, once the valve went closed the actuator could no longer reopen the valve. The licensee has experienced problems with feed regulating valve stems breaking in the past, and modifications have been performed on both Unit 1 and Unit 2 feedwater regulating valves. The modifications on the Unit 2 valves are more advanced, including a bigger stem, and appear to have solved the problem. The licensee had scheduled the same modifications on the Unit 1 valves during the next refueling outage.

Following the trip the Unit 1 feedwater regulating valves were inspected and repaired as necessary. The "B" feedwater regulating valve stem and actuator were replaced.

All of the systems operated as required with a few exceptions. The major problem following the trip was the failure of the "C" main feedwater isolation valve to fully close. The failure of the feedwater system to fully isolate resulted in a cooldown below the normal 547 degrees F to approximately 538 degrees F with a resulting pressure decrease to 1870 psig. The licensee manually isolated feedwater and maintained S/G levels with the auxiliary feedwater system which was already in operation. The problem relating to the failure of the "C" feedwater isolation valve to close is discussed in Section 3 of this report. Followup will be via inspector follow-up item (IFI) 338/88-22-01.

The only other problems associated with the trip were several valve position indicators which did not function properly; a problem with one of the steam dump valves, and the failure of the General Electric Transient Analysis recording systems to actuate. The inspectors will followup on the licensee's actions and closeout these issues based on the LER review and closeout.

No violations or deviations were identified.

8. Licensee Event Report (LER) Follow-up (90712)

The following LERs were reviewed and closed. The inspector verified that reporting requirements had been met, that causes had been identified, that corrective actions appeared appropriate, that generic applicability had been considered, and that the LER forms were complete. Additionally, the inspectors confirmed that no unreviewed safety questions were involved and that violations of regulations or technical specifications (TS) conditions had been identified.

LERs that identify violation(s) of regulation(s) and that meet the criteria of 10 CFR, Part 2, Appendix C, Section V are identified as Licensee Identified Violations (LIV) in the following closeout paragraphs. LIVs are considered first-time occurrence violations which meet the NRC enforcement policy criteria for exemption from issuance of a Notice of Violation. These items are identified to allow for proper evaluation of corrective actions in the event that similar events occur in the future.

- a. (Closed) LER 338/87-12, Rev. 0: Inadvertent Partial Solid State Protection System Actuation

A safety injection slave relay (K602) was energized during the performance of Reactor Protection and Engineered Safety Features Response Time Test (Periodic Test 36.5). The root cause of the inadvertent actuation was procedure inadequacy. The procedures have been revised and approved by SNSOC.

- b. (Closed) LER 338/87-14, Rev. 0: Loss of RCS Inventory While In Cold Shutdown

The licensee has issued an operations directive and station manager's memo notifying personnel to be aware of any testing not covered in the Final Safety Analysis Report (FSAR). It outlines the steps to be taken for a 10 CFR 50.59 evaluation. Training has also been accomplished for the operators on loss of inventory. Other corrective actions are being tracked by the violations identified in inspection report 87-21.

- c. (Closed) LER 338/87-21, Rev. 0 and Rev. 1: Loss of Environmental Qualification of SI Accumulator Tank Pressure Transmitters

STD-GN-0001, Instructions For DCP Preparation, has been revised to provide additional guidance and instructions for design change package (DCPs) which require the installation of equipment per the manufacturer's installation instructions.

- d. (Closed) LER 338,339/87-23, Rev. 0 and 1: Kaman Process Vent Normal Range Radiation Monitor Exceeded T.S. Action Statement.

The monitor has been repaired. An alternate method using the Westinghouse monitor was available to accomplish automatic actions. Additionally, the Nuclear Research Corporation radiation monitors continued to operate throughout this event as the Technical Specification required preplanned alternate monitoring method on the process vent release path.

- e. (Closed) LER 338/87-17, Rev. 1: Steam Generator Tube Rupture

Responses will be tracked under the items identified in AIT report 338/87-24 dated August 28, 1988.

- f. (Closed) LER 338/88-15, Rev. 0: RHR Pumps Not Tested During Steam Generator Tube Rupture Outage

A station deviation report was submitted to notify the responsible department of the missed surveillance and to schedule it for the next time the unit is in Mode 5. The ISI Pump and Valve program was reviewed to ensure there were no other missed surveillances. This item is identified as a LIV (338/88-22-04) for failure to conduct a surveillance on schedule. Based on the licensee's corrective action and program this LER and LIV are closed.

9. Licensee Action on Previous Enforcement Matters (92702)

(Closed) Licensee Identified Violation (LIV) 338,339/87-19-17: Core Alteration Without A Charging Pump

The licensee investigated this and similar instances where mode changes were made without taking proper action. This was investigated using the Human Performance Evaluation System (HPES) techniques. The licensee had developed mode change checklists to avoid these problems in the future.

10. Exit

The inspection scope and findings were summarized on August 19, 1988, with those persons indicated in paragraph 1. The inspectors described the areas inspected and discussed in detail the inspection results listed below. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

<u>Item Number</u>	<u>Description and Reference</u>
338/88-22-01	Inspector Followup Item (IFI) - Followup on the cause of Unit 1 "C" main feedwater isolation failure to fully close (paragraph 3)
338/88-22-02	Violation - Failure to follow a containment entry procedure with three examples (paragraph 6)