



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

Report Nos.: 50-280/93-05 and 50-281/93-05

Licensee: Virginia Electric and Power Company  
 5000 Dominion Boulevard  
 Glen Allen, VA 23060

Docket Nos.: 50-280 and 50-281

License Nos.: DPR-32 and DPR-37

Facility Name: Surry 1 and 2

Inspection Conducted: February 7 through March 6, 1993.

Inspectors:

*J. W. York* *Fav* *3/31/93*  
 J. W. York, Acting Senior Resident Date Signed  
 Inspector

*S. G. Tingen* *Fav* *3/31/93*  
 S. G. Tingen, Resident Inspector Date Signed

Approved by: *G. A. Belisle* *3/31/93*  
 G. A. Belisle, Section Chief Date Signed  
 Division of Reactor Projects

SUMMARY

Scope:

This routine resident inspection was conducted on site in the area of plant status, operational safety verification, maintenance inspections, safety assessment and quality verification, action on previous inspection items, and licensee event review. During the performance of this inspection, the resident inspectors conducted review of the licensee's backshifts, holiday or weekend operations on February 7, 10, 11, 19, 24 and March 2.

Results:

In the operations area, the following item was noted:

A Unit 1 reactor trip due was caused by a failed relay in the reactor trip breaker's circuitry. The reactor operators performed well in shutting down the unit and in averting an excessive reactor cooldown rate (paragraph 3.b).

In the emergency preparedness area, the following item was noted:

During an emergency preparedness exercise, the maintenance manager and some of his support staff were assigned to be in the operational support center. This innovative approach was identified as a strength (paragraph 3.c).

In the maintenance/surveillance functional area, the following items were noted:

Three examples of failure to follow administrated procedures were identified as Non-cited Violation 50-280/93-05-01, Failure to Follow Station Procedures VPAP-0305 and ST-GN-0003 (paragraph 4.a).

The number and average age of work orders completed but not closed has been significantly reduced over the past year (paragraph 4.a).

Instructions in a non-upgraded maintenance procedure for adjusting the main steam power operated relief valve stroke were in conflict with the vendor technical manual instructions. Mechanics had to revise the procedure in order to accomplish the required maintenance (paragraph 4.b).

The failure to properly reassemble and test 1-MS-RV-101A following maintenance was not identified as a violation because the ability of the main steam power operated relief valves to modulate to intermediate positions is not considered a safety-related function; however, this was considered a weakness in the area of conduct of maintenance (paragraph 4.b).

In the engineering/technical support area, the following items were noted:

An unresolved item, 50-280/93-05-03, was identified regarding the operability of containment recirculation spray system with Radiation Monitor Cabinet 1-2 inoperable (paragraph 3.e).

An unresolved item, 50-280/93-05-04, was identified regarding the effects of positioning the main steam valve house inlet air louver during operation of the auxiliary feedwater pumps (paragraph 3.f).

The failure to implement administrative controls on the component cooling inlet line containment isolation valves in accordance with Chapter 5.2 of the Updated Final Safety Analysis Report was identified as non-cited violation 50-280, 281/93-05-02 (paragraph 6).

In the safety assessment/quality verification area, the following item was noted:

The Management Safety and Review Committee was sensitive to operator errors and members were objective in evaluating technical specification changes.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- R. Allen, Supervisor, Operations
- \* W. Benthall, Supervisor, Licensing
- \* R. Bilyeu, Licensing Engineer
- \* H. Blake, Superintendent of Site Services
- M. Bowling, Manager, Corporate Nuclear Licensing
- R. Blount, Superintendent of Engineering
- \* D. Christian, Assistant Station Manager
- \* H. Collar, Supervisor, Quality Assurance
- \* J. Downs, Superintendent of Outage and Planning
- \* D. Erickson, Superintendent of Radiation Protection
- A. Fletcher, Assistant Superintendent, Engineering
- \* B. Foster, Supervisor, Station Engineering
- \* R. Gwaltney, Superintendent of Maintenance
- \* M. Kansler, Station Manager
- C. Luffman, Superintendent, Security
- A. Meekins, Supervisor, Administrative Services
- \* J. McCarthy, Superintendent of Operations
- J. O'Hanlon, Vice President, Nuclear Operations
- \* A. Price, Assistant Station Manager
- \* R. Saunders, Assistant Vice President, Nuclear Operations
- E. Smith, Site Quality Assurance Manager
- B. Stanley, Supervisor, Station Procedures
- J. Swientoniewski, Supervisor, Station Nuclear Safety

#### NRC Personnel

- \* A. Belisle, Section Chief
- \* S. Tingen, Resident Inspector
- \* J. York, Acting Senior Resident Inspector

#### \*Attended Exit Interview

Other licensee employees contacted included control room operators, shift technical advisors, shift supervisors and other plant personnel.

Acronyms and initialisms used throughout this report are listed in the last paragraph.

### 2. Plant Status

Unit 1 began the reporting period in power operation. On February 9, an automatic reactor trip occurred due to a relay failure that resulted in the A reactor trip breaker opening. This event is further discussed in paragraph 3.b. The unit was restarted and returned to full power on February 11. On March 3, power was reduced to 58% to repair the B MFP.

The unit was at 58% power at the end of the inspection period, day 24 of continuous operations.

Unit 2 began the reporting period in coastdown at 96% power. On March 5 the Unit was at 79% power. The Unit was shutdown on March 6 to commence a RFO.

3. Operational Safety Verification (71707, 42700)

The inspectors conducted frequent tours of the control room to verify proper staffing, operator attentiveness and adherence to approved procedures. The inspectors attended plant status meetings and reviewed operator logs on a daily basis to verify operations safety and compliance with TSs and to maintain awareness of the overall operation of the facility. Instrumentation and ECCS lineups were periodically reviewed from control room indication to assess operability. Frequent plant tours were conducted to observe equipment status, fire protection programs, radiological work practices, plant security programs and housekeeping. Deviation reports were reviewed to assure that potential safety concerns were properly addressed and reported.

a. Licensee 10 CFR 50.72 Reports

On February 9, the licensee made a 10 CFR 50.72 report concerning a Unit 1 automatic reactor trip. The automatic reactor trip was initiated by failure of the A reactor trip breaker automatic shunt trip relay. This caused the A reactor trip breaker to open. With the exception of the following, all systems operated as required after the trip:

The pressurizer spray valve controller manual push button stuck, causing a PORV to lift.

The pressurizer heater group B breaker did not automatically trip on low pressurizer level.

The D MSR MS inlet valve, 1-MS-FCV-104D, failed to fully close causing an excessive plant cooldown.

GETARS was improperly aligned; consequently, it did not record the post trip plant data.

This event is further discussed in paragraph 3.b.

On February 26, the licensee made a 10 CFR 50.72 report concerning the potential for a release exceeding 10 CFR 100 limits following a LOCA. During a medium break LOCA and in the recirculation mode, it is postulated that if a certain check valve failed, LHSI pump discharge pressure would be applied to the relief valve for the seal water return heat exchanger. If the setpoint for this relief valve were exceeded, the VCT could be filled. Overflow from the VCT would then flow into the liquid waste system. This event is discussed further in paragraph 3.d.

b. Unit 1 Reactor Trip

On February 9, the licensee performed 1-PT-8.1, Reactor Protection Systems Logic, dated April 2, 1991. The purpose of this PT is to test Trains A and B reactor protection logic channels on a monthly basis. At 10:43 a.m., while the licensee was concluding this periodic test, the A reactor trip breaker received a spurious signal to open following the opening of the B reactor trip breaker bypass breaker.

The reactor trip occurred when failure of the shunt trip relay opened the A reactor trip breaker. This relay in the A train as well as the relay in the B train were replaced. The failed relay was sent to the vendor for failure analysis and the results will be included in the formal root cause report (RCE 93-03). The inspectors will review this failure analysis.

The post trip RCS cooldown occurred more rapidly than expected. The reactor coolant primary system temperature went from 574 degrees F to 522 degrees F in approximately three minutes. The TS limits for cooldown are less than 100 degrees F in one hour. The reactor operators noted the cooldown with the resultant indicators (pressure, level, and temperature) and closed the MSTVs. This stopped the reactor cooldown rate. After closing the MSTVs, these parameters began to increase. This appropriate action by the operators prevented a safety injection. The TS and administrative shutdown margin limits were maintained.

The licensee performed an evaluation of the reactor trip and cooldown. The results of the evaluation showed that (1) a moisture separator and reheat steam supply flow control valve, 1-MS-FCV-104D, was approximately 20 percent open due to the valve's jacking device being partially engaged, and (2) two MSSV bypass valves (one inch diameter piping) were stuck in the open position. Calculations show that the valve being partially on the jack contributed approximately 50 percent of the value needed to cause the more rapid cooling condition.

The evaluation of the valve's jacking device being partially engaged was that during a previous adjustment of the jack there was some binding and the operator erroneously thought that he had the valve off the jack. Corrective action to prevent recurrence was to improve the operator training regarding operation of this type of valve.

The pressurizer spray valve manual push button that stuck was repaired by cleaning and lubricating. The pressurizer heater group B breaker that did not automatically trip on low pressure was replaced before startup. The inspectors concluded that the licensee's trip evaluation was thorough and timely.

Since GETARS was not properly aligned, not all the plant post trip data was available. The GETARS limit checks should have been changed before the I&C group started their testing on the reactor trip breakers. The STA is responsible for this change, but the procedure is not clear. The licensee stated that a procedural change will be processed to clarify this step.

c. Emergency Exercise

On February 17, the inspectors observed an emergency exercise conducted by the licensee. The exercise involved the simulation of several seismic events, fuel damage, and large break LOCA in containment. The licensee used this exercise to evaluate several different techniques for performing emergency functions. One of these techniques was to have the maintenance manager located at the operations support center instead of being in the technical support center. This exercise involved a direct interface between operations, maintenance, and health physics personnel. The intent was to determine if maintenance response and repair time during an emergency could be shortened. Another innovation was to assign an SRO and an HP coordinator to the OSC to aid the maintenance manager in his decision making. The HP coordinator was in contact with the radiation protection supervisor and information concerning the members of a particular maintenance team and the area to which they were going was relayed. This allowed the supervisor to start preparations for a briefing and to assign an HP technician to accompany the team thereby shortening the time for the emergency maintenance.

The licensee intends to further refine this innovation by using it in an exercise later this year. Results of this proactive approach could result in an improved ability by the licensee to respond to an emergency event and is considered a strength.

d. Evaluation of Potential Release During a LOCA

The inspectors reviewed the licensee's evaluation of another nuclear facility's 10 CFR 50.72 report regarding the potential for a release exceeding 10 CFR Part 100 as it relates to Surry. Preliminary indications were that Surry could be vulnerable and a 10 CFR 50.72 report was made.

The scenario would involve a medium break LOCA during which the suction of the SI pumps is transferred to the containment sump from the RWST. The HHSI pumps take suction from the LHSI pumps in this mode. If the discharge pressure of the LHSI pumps was greater than the relief valve setpoint on the seal water return heat exchanger to the VCT and the check valve between the VCT and the discharge of the LHSI pumps leaked, then the relief valve would lift and discharge coolant to the VCT. When the VCT overflowed, it would create a release to the liquid waste system.

If this happened, it would represent a previously unanalyzed potential radioactive release path. The licensee has reported this potential for Surry (reference paragraph 3.a) but engineering is refining the initial calculations and the problem may not exist. The inspectors are reviewing this situation.

e. Loss of Radiation Monitor Power Supply

On February 20, radiation monitor cabinet 1-2 power supply failed rendering the following Unit 1 radiation monitors inoperable:

- 1-SV-RM-102, condenser air ejector
- 1-CH-RM-118/119, letdown hi/lo range
- 1-SW-RM-120, SW discharge tunnel
- 1-SW-RM-114, A RSHX SW discharge
- 1-SW-RM-115, B RSHX SW discharge
- 1-SW-RM-116, C RSHX SW discharge
- 1-SW-RM-117, D RSHX SW discharge

The licensee considered that radiation monitors 1-SW-RM-114, 115, 116, and 117 were part of the containment recirculation spray subsystems and declared both trains of containment recirculation spray inoperable. A six-hour LCO to hot shutdown was entered in accordance with TS 3.0.1. Radiation monitor cabinet 1-2 was powered from a temporary power supply and the six hour LCO was exited. At the end of the inspection period, the licensee was preparing an LER to report this event.

TSs do not specifically address operational requirements for the RSHX SW discharge radiation monitors. The inspectors concluded that the licensee's decision to declare both trains of containment recirculation spray inoperable on failure of the radiation monitor cabinet power supply was conservative. The inspectors questioned the system design in that a single failure caused both trains of a safety system being declared inoperable. At the end of the inspection period, the licensee was evaluating this issue. This issue was identified as URI 50-280/93-05-03, Operability of Containment Recirculation Spray System With Radiation Monitor Cabinet 1-2 Inoperable.

f. MSVH Intake Louvers

Each MSVH contains one set of air inlet louvers. The position of the louvers, open or shut, is automatically regulated by the ambient temperature in the lower level MSVH. A single motor



operator and thermostat assembly are utilized to automatically operate the louvers in each MSVH. On loss of power to the motor operator, the louvers fail open.

On March 2, operators identified that the actuator arm connecting the air inlet louvers to the motor operator in Unit 2 MSVH was broken and, therefore, the ability of the louvers to automatically operate was disabled. The system engineer was contacted and instructed operators that the louvers should be shut unless the Unit 2 AFW pumps are operating and manually opened if pumps are operating. The louver actuator arm was repaired and the ability to automatically operate was restored on March 3.

The three Unit 2 AFW pumps are located in the Unit 2 MSVH adjacent to the air inlet louvers. EWR 91-100, VS Dampers Actuator Modification, dated November 5, 1991, provided instructions for installation of the motor operator to automatically operate the louvers and states that the maximum ambient temperature in the area is limited to 180°F for AFW turbine operations during station black out. EWR 91-100 does not address if the louvers are required to open to prevent temperature in the area from exceeding 180°F. The inspectors questioned if operation of the AFW pumps was dependent on opening the MSVH air inlet louvers to maintain the required ambient air temperature. At the end of the inspection period, the licensee was evaluating this issue. This issue was identified as URI 50-280/93-05-04, Effects Of MSVH Inlet Air Louver on Operation of the AFW Pumps.

Within the areas inspected, no violations were identified.

4. Maintenance Inspections (62703) (42700)

During the reporting period, the inspectors reviewed the following maintenance activities to assure compliance with the appropriate procedures.

a. Unit 1 Containment Isolation Valve Solenoid Replacement

On February 10, 1993, the licensee initiated DR S-93-0150. This DR identified that during the spring 1992 Unit 1 RFO the incorrect model number solenoids were installed on containment isolation valves 1-DA-SOV-100A and B. The solenoids installed were rated at 45 psig and installed in air systems that operated at 80 to 110 psig. On a containment isolation signal 1-DA-SOV-100A and B, normally open valves, automatically shut. The licensee was concerned that at a higher than rated air pressure the 1-DA-SOV-100A and B solenoids would stick and not reposition when deenergized by a containment isolation signal. As a result, the valves were declared inoperable and a TS six-hour action statement was entered due to degraded containment integrity. The licensee shut and deenergized 1-DA-SOV-100A and B and exited the six-hour

action statement. Several days later the solenoids were replaced with the correct model number and the valves were returned to service.

Solenoid valves 1-DA-SOV-100A and B are stroked and timed monthly in accordance with the IST program requirements. Because the valves passed the monthly surveillance tests, the licensee concluded that they were operable with the incorrect solenoids installed. The inspectors reviewed this event in order to determine the cause for the installation of incorrect solenoids.

The incorrect solenoids were installed on April 14 and 23, 1992. These are EQ components and VPAP-0305, Electrical Equipment Qualification Program, Revision 0, requires that the site EQC review EQ WOs. During the review of the WOs that replaced the 1-DA-SOV-100A and B solenoids, the EQC identified that the incorrect solenoids were installed and a DR was initiated on February 10, 1993.

The WOs for the replacement of 1-DA-SOV-100A and B solenoids specified the incorrect part number which resulted in the installation of an incorrect solenoids. The inspectors concluded that the planner had obtained the incorrect part number from the Q-List which specified the incorrect part number. The Q-List is a listing of station safety-related components and nonsafety-related components with special regulatory significance. It is controlled by ST-GN-0003, Standards For Determining Safety Classification of Structures, Systems, and Components, Revision 2. ST-GN-0003 states that the component Q-List safety classification and mark number are controlled but that the other information provided by the Q-List is uncontrolled. ST-GN-0003 also states that uncontrolled Q-List information must be verified prior to use. The inspectors concluded that the planner did not verify the uncontrolled Q-List information pertaining to part numbers for 1-DA-SOV-100A and B solenoids when processing the WOs to replace the solenoids and this is not in accordance with ST-GN-0003. The failure to follow the requirements of ST-GN-0003 was identified as the first example of NCV 50-280/93-05-01. The inspectors discussed this issue with a planner and the Superintendent of Outage and Planning. The inspectors concluded that this was a programmatic problem because the planning department was not aware of the ST-GN-0003 requirement to verify uncontrolled Q-List data prior to use. On February 18, the Superintendent of Outage and Planning issued a memorandum to Planning Department personnel explaining that uncontrolled Q-List data must be verified prior to use. The inspectors reviewed the memorandum and considered it acceptable corrective action for this problem.

Because it took approximately nine months for the licensee to identify that the incorrect solenoids were installed, the inspectors assessed the licensee's WO review process. The

These three examples of failure to follow procedure were identified as NCV 50-280/93-05-01, Failure to Follow Station Procedures VPAP-0305 and ST-GN-0003. This violation will not be subject to enforcement action because the licensee's efforts in identifying and correcting the violation meet the criteria specified in Section VII.B of the Enforcement Policy.

The licensee is performing an indepth Root Cause Evaluation into how the wrong solenoid valves were installed in the system. At the end of this report period, this evaluation was in process. This evaluation will be reviewed by the Residents when it is completed.

b. Repair of Unit 1 MS PORV 1-MS-RV-101A

On February 16 through 19, the inspectors witnessed repairs on Unit 1 MS PORV 1-MS-RV-101A. Work Order 38000137542 and procedure MMP-C-MS-122, 5" Relief Dump Valves, Disassembly, Repair, Reassembly, and Test "Safety Related", dated March 26, 1992, were used to accomplish this maintenance.

During the performance of 1-PT-14.5, Test of Main Steam Power Operated Relief Valves, dated November 3, 1992, the A MS PORV would not open from the control room. Subsequent investigation revealed that the stem connector block did not securely attach the valve stem to the air operator. The purpose of this maintenance was to remove and inspect the stem connector block and make the necessary repairs.

While preparing to perform this maintenance the mechanics identified that instructions in MMP-C-MS-122 for adjusting valve stroke were in conflict with the vendor technical manual. The mechanics had to revise the procedure in order to accomplish this maintenance. MMP-C-MS-122 was not an upgraded procedure.

After the maintenance was completed, 1-MS-RV-101A was tested in accordance with 1-PT-14.5 and returned to service. The inspectors walked the valve down after it was returned to service and noted that the positioner feedback bracket was attached to the controller but not attached to the stem connector block. In this condition the valve would travel full open or shut, but would not modulate to intermediate positions. Operators were notified of this condition and the PORV was isolated.

Subsequent investigation revealed that the mechanics failed to reconnect the positioner feedback bracket following the maintenance. In addition, the post maintenance test was inadequate in that it did not test the PORV's modulating capability which would have identified that the valve was improperly assembled.

maintenance to replace 1-DA-SOV-100A solenoid was completed on April 23, 1992, in accordance with WO 3800116298. This work order was closed by the planning department on November 2, 1992, and sent to the EQC on December 3, 1992. The maintenance to replace the 1-DA-SOV-100B solenoid was completed on April 18, 1992, in accordance with WO 3800116299. This work order was closed by the planning department on August 12, 1992, and sent to the EQC on September 1, 1992.

The inspectors determined that after the maintenance was completed it took five months to close WO 3800116298 and four months to close WO 3800116299. The amount of time to close a WO is significant because the EQC does not review the WO until it is closed.

The inspectors concluded that the licensee had a large backlog of completed but not closed WOs which resulted in an excessive amount of time for WO closure. The licensee has implemented goals to reduce this backlog and has successfully reduced the backlog of closed but not completed WOs. On March 1, there were 221 completed but not closed WOs with an average age of 17 days. This is a significant improvement in that a year ago there was a backlog of approximately 800 completed but not closed WOs with an average age of approximately 200 days.

Paragraph 6.3.3.g of VPAP-0305 requires that within two weeks after the closure of an EQ-related WO, Outage and Planning provide the EQC with a copy of the WO, material list, component installation date and EQ worksheet. It took approximately four weeks for the Outage and Planning Department to provide the EQC with a copy of WO 3800116298 and three weeks for Outage and Planning to provide the EQC a copy of WO 3800116299. This exceeds the two weeks specified by VPAP-0305 and this failure to follow procedure is identified as example two of NCV 50-280/93-05-01. On February 24, the Superintendent of Outage and Planning issued a memorandum to Planning Department personnel explaining that EQ related WOs are required to be provided to the EQC within two weeks after closure.

Paragraph 6.3.3.h of VPAP-305 requires that within 30 days of receipt of a closed EQ related WO, the EQC review the WO for compliance with the EQ requirements and initiate required changes to the EQLM, related EQ documentation, and the Q-List. It took approximately two months for the EQC to review WO 3800116298 and six months to review WO 380011629. This exceeds the thirty day period specified by VPAP-0305 and the failure to follow procedure is identified as example three of NCV 50-280/93-05-01. In order to prevent recurrence, the EQC has enhanced the process for tracking review of closed EQ related WOs.

The failure to properly reassemble and test 1-MS-RV-101A following maintenance was not identified as a violation because the ability of the MS PORVs to modulate to intermediate positions is not considered a safety-related function; however, this was considered a weakness in the area of conduct of maintenance. The MS PORVs are important to safety because EOPs utilize the MS PORVs as a method to control RCS temperature in order to minimize operation of SG safety relief valves.

The feedback positioner arm was reinstalled and the valve's ability to modulate was satisfactorily tested.

Within the areas inspected, one non-cited violation was identified.

5. Safety Assessment and Quality Verification (40500)

a. Management Safety Review Committee Meeting

The inspectors attended a part of the MSRC meeting held at Surry on March 3. One of the topics being discussed was operator errors. A member of the board had asked a question concerning the operator errors discussed in the NRC Resident Inspectors' reports for the September and October time frame. The assistant station manager responsible for the nuclear safety section discussed the method for detecting trends and the fact that the number of operator errors decreased from the time period denoted in the NRC reports.

Another topic discussed was a TS change for the North Anna Nuclear Plant concerning an alternative method for sleeving a leaking steam generator tube. Several questions were raised concerning the adequacy of the safety analysis to support the TS change. After the lively and informed discussions a vote was taken and the TS change as submitted to the committee was rejected. The safety analysis will have to be modified before this TS change is resubmitted to the committee.

The inspectors concluded that the MSRC was sensitive to elements (such as operator errors) that are important to the safe operation of a nuclear plant and that the committee is objective in evaluating topics such as TS changes that are brought before it for evaluation.

Within the areas inspected, no violations were identified.

6. Action on Previous Inspection Items (92701,92702)

(Closed) URI 50-280/91-26-01, Administrative Control of Containment Isolation Valves. The issue involved administrative control of CC to RCP inlet containment isolation valves 1-CC-216, 218, and 219. Section 5.2 of the UFSAR states that these valves are containment isolation

valves and are administratively controlled. The inspectors concluded that the licensee did not have procedures that established administrative control of 1-CC-216, 218, and 219 or the corresponding Unit 2 valves 2-CC-216, 218 and 219.

After further review, the licensee identified five additional CC inlet manual containment isolation valves in each of the units that were not administratively controlled in accordance with Chapter 5.2 of the UFSAR. These valves were CC to containment air recirculation fans A, B, and C and RHR heat exchangers A and B.

The failure to implement administrative controls on the CC inlet line containment isolation valves in accordance with Chapter 5.2 of the UFSAR was identified as NCV 50-280, 281/93-05-02. This NRC identified violation is not being cited because criteria specified in Section VII.B of the NRC Enforcement Policy were satisfied. On February 11, the licensee revised OPT-CT-306, Containment Integrity Verification For: Outside CTMT Manual or Deactivated Valves, LMC Valves, and the Equipment and Personnel Hatches, to establish administrative control by verifying the position of these normally open CC valves monthly.

(CLOSED) VIO 50-280,281/91-33-02, Failure to Maintain Administrative Control For Containment Isolation Valves. This issue involved failure to lock closed main steam trip valves' bypass valves in accordance with TS 3.8.A requirements for manual containment isolation valves. In letters dated January 29 and February 21, 1992, the licensee responded to this violation. In these letters, the licensee identified other containment isolation valves that were not being locked closed in accordance with TS 3.8.A. The letters stated that locking devices would be installed on the containment isolation valves which were identified as not being locked closed and revise the UFSAR to specify the valves that are required to be locked closed. The inspectors reviewed Revision 17 to chapter 5.2, Containment Isolation, of the UFSAR and verified that it specified the valves to be locked shut. The inspectors also routinely walk down systems and verify that the appropriate valves are locked shut.

Within the areas inspected, one non-cited violation was identified.

#### 7. Licensee Event Review

The inspectors reviewed the LER listed below and evaluated the adequacy of the corrective action. The inspector's review also included followup of the licensee's corrective action implementation.

(Closed) LER 50-281/92-005, One Train of Intake Canal Level Sensing Channel I Discovered Out of the Trip Position After Isolation of Screenwell. On April 10, 1992, channel I of the intake canal level sensing system was discovered in its normal operating position, rather than its tripped position. Both trains of this channel had been placed in trip in preparation for isolating a portion of the intake structure.

Whenever a portion of the intake structure that contains one of these sensors is isolated with stop-logs, the level sensing device is placed in trip according to TS requirements. The exact cause of the event is undetermined. However, contractor personnel were working in the vicinity, and the conclusion was that the switch position was inadvertently knocked out of position by contractor personnel climbing in the area above the switch (the activity involved pulling cable overhead).

A problem alert memorandum, dated May 15, 1991, was issued to station and contractor personnel encouraging caution when climbing above equipment or working in cramped areas. Station management also emphasized the prohibited practices of climbing upon, standing upon, or changing the status of plant equipment during employee update meetings. Also, engineering evaluated the configuration and location of the subject switch, but concluded that no change was necessary. The inspectors concluded that the licensee's corrective actions were adequate.

#### 8. Exit Interview

The results were summarized on March 9, 1993, with those individuals identified by an asterisk in Paragraph 1. The following summary of inspection activity was discussed by the inspectors during this exit:

<u>Item Number</u>	<u>Status</u>	<u>Description</u>
NCV 50-280/93-05-01	Closed	Failure to Follow Station Procedures VPAP-0305 and ST-GN-0003 (paragraph 4.a).
NCV 50-280,281/93-05-02	Closed	Failure to Implement Administrative Controls on the CC Inlet Line Containment Isolation Valves in Accordance with UFSAR (paragraph 6).
URI 50-280/93-05-03	Open	Operability of Containment Recirculation Spray System With Radiation Monitor Cabinet 1-2 Inoperable (paragraph 3.e).
URI 50-280/93-05-04	Open	Effects Of MSVH Inlet Air Louver on Operation of the AFW Pumps (paragraph 3.f).
URI 50-280/91-26-01	Closed	Administrative Control of Containment Isolation Valves (paragraph 6).

VIO 50-280,281/91-33-02 Closed

Failure to Maintain  
Administrative Control For  
Containment Isolation Valves  
(paragraph 6).

LER 50-281/92-005 Closed

One Train of Intake Canal  
Level Sensing Channel I  
Discovered Out of the Trip  
Position After Isolation of  
Screenwell (paragraph 7).

Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.

## 8. Index of Acronyms and Initialisms

AFW	-	AUXILIARY FEEDWATER
CC	-	COMPONENT COOLING
CFR	-	CODE OF FEDERAL REGULATIONS
CTMT	-	CONTAINMENT
DR	-	DEVIATION REPORT
ECCS	-	EMERGENCY CORE COOLING SYSTEM
EOP	-	EMERGENCY OPERATING PROCEDURE
EQ	-	ENVIRONMENTAL QUALIFICATION
EQC	-	ENVIRONMENTAL QUALIFICATION COORDINATOR
EQLM	-	EQUIPMENT QUALIFICATION MASTER LIST
EWR	-	ENGINEERING WORK REQUEST
F	-	FAHRENHEIT
GETARS-		GENERAL ELECTRIC TRANSIENT ANALYSIS RECORDING SYSTEM
HHSI	-	HIGH HEAD SAFETY INJECTION
HP	-	HEALTH PHYSICS
I&C	-	INSTRUMENTATION AND CALIBRATION
IST	-	INSERVICE TESTING PROGRAM
LER	-	LICENSEE EVENT REPORT
LCO	-	LIMITING CONDITION FOR OPERATION
LHSI	-	LOW HEAD SAFETY INJECTION
LOCA	-	LOSS OF COOLANT ACCIDENT
LMC	-	LEAKAGE MONITOR CONNECTION
MFP	-	MAIN FEEDWATER PUMP
MS	-	MAIN STEAM
MSR	-	MOISTURE SEPARATOR REHEATER
MSRC	-	MANAGEMENT SAFETY REVIEW COMMITTEE
MSSV	-	MAIN STEAM STOP VALVE
MSTV	-	MAIN STEAM TRIP VALVE
MSVH	-	MAIN STEAM VALVE HOUSE
NCV	-	NON-CITED VIOLATION
NRC	-	NUCLEAR REGULATORY COMMISSION
OSC	-	OPERATIONS SUPPORT CENTER
PORV	-	POWER OPERATED RELIEF VALVE
PSIG	-	POUNDS PER SQUARE INCH GAUGE
PT	-	PERIODIC TEST



RCE	-	ROOT CAUSE EVALUATION
RCP	-	REACTOR COOLANT PUMP
RCS	-	REACTOR COOLANT SYSTEM
RFO	-	REFUELING OUTAGE
RHR	-	RESIDUAL HEAT REMOVAL
RSHX	-	RECIRCULATION SPRAY HEAT EXCHANGER
RWST	-	REFUELING WATER STORAGE TANK
SOV	-	SOLENOID OPERATED VALVE
STA	-	SHIFT TECHNICAL ADVISOR
SRO	-	SENIOR REACTOR OPERATOR
SW	-	SERVICE WATER
TS	-	TECHNICAL SPECIFICATION
UFSAR	-	UPDATED FINAL SAFETY ANALYSIS REPORT
URI	-	UNRESOLVED ITEM
VCT	-	VOLUME CONTROL TANK
WO	-	WORK ORDER