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

Report Nos.: 50-338/90-25 and 50-339/90-25

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

Docket Nos.: 50-338 and 50-339 License Nos.: NPF-4 and NPF-7

Facility Name: North Anna 1 and 2

Inspection Conducted: September 16 through October 20, 1990

Inspectors: _____ 11/19/90
M.S. Lesser, Senior Resident Inspector Date Signed

_____ 11/19/90
L.P. King, Resident Inspector Date Signed

Approved by: _____ 11/19/90
P.E. Fredrickson, Section Chief Date Signed
Division of Reactor Projects

SUMMARY

Scope:

This routine inspection by the resident inspectors involved the following areas: operations, maintenance, surveillances, modifications, operational event followup, licensee event report followup, midloop operations, and action on previous inspection findings. Inspections of licensee backshift activities were conducted on the following days: September 19, 20, 21, 25, 26, and 27.

Results:

One noncited violation was identified which involved the failure to revise procedures following an instrument air system design change, which had the potential for overloading the EDG. (paragraph 6.b).

The current Unit 2 refueling outage has been effectively managed to date by the licensee. One initiative that appears useful is a method for identifying and tracking, until resolution, potentially significant safety or regulatory issues that occur during the outage. (paragraph 2)

The licensee has identified a potentially generic issue involving an additional heat of SG tube plugs which may be susceptible to PWSCC. (paragraph 2)

The inspectors identified a weakness in the licensee's equipment tagging program specific to master tagouts. Conditions requiring tagout boundary modification have led to two minor spills. Personnel errors, resulting from procedural inconsistencies and lack of guidance, are the primary cause although outage planning methods need some improvement to minimize the challenges. (paragraph 3.a)

Instances of missing abnormal procedures in the control room were identified. Copies were depleted by NRC operator license candidates during an examination. A lack of sensitivity regarding maintenance of an inventory of copies appeared to be the cause. (paragraph 3.b)

The inspectors reviewed the licensee's program for midloop operations which appeared adequate. One concern was identified involving the licensee's vent path through the hot leg. The licensee agreed to amplify their response to Generic Letter 88-17. The licensee's self assessment of the program was also reviewed and was considered a strength. (paragraph 3.c)

Preventive maintenance procedures for the new instrument air compressors have not been completely updated as indicated by the reference to an incorrect grease for lubricating motor bearings. (paragraph 4.a)

The inspectors reviewed the preventive and corrective maintenance program of the control room chillers in response to several recent chiller trips. While the program appeared adequate, some gages were noted not to be in the calibration program and sufficient data to adequately monitor chiller operating performance was not routinely recorded and evaluated by operators. (paragraph 4.b)

A weakness was identified with the licensee's program to revise and upgrade instrumentation procedures. I&C personnel identified many examples where additional changes were necessary for newly retyped procedures. Contrasting expectations of the goals of the program by various involved groups appeared to exist. (paragraph 5.a)

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*M. Bowling, Assistant Station Manager
*L. Edmonds, Superintendent, Nuclear Training
*R. Enfinger, Assistant Station Manager
M. Gettler, Superintendent, Site Services
*D. Heacock, Superintendent, Engineering
*G. Kane, Station Manager
*P. Kemp, Supervisor, Licensing
*W. Matthews, Superintendent, Maintenance
D. Roberts, Supervisor, Nuclear Safety Engineering
R. Shears, Superintendent, Outage Management
*J. Smith, Manager, Quality Assurance
*A. Stafford, Superintendent, Health Physics
*J. Stall, Superintendent, Operations

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

NRC Resident Inspectors

L. King, Resident Inspector
*M. Lesser, Senior Resident Inspector

*Attended exit interview

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

2. Plant Status

Unit 1 started the period operating at 100 percent power. On September 24, RCS boron concentration reached 0 PPM and power coastdown was initiated. The unit ended the reporting period at 82 percent power on day 269 of continuous operation.

Unit 2 started the period in mode 6, completed refueling and ended the period in mode 5 at day 60 of the scheduled 75 day outage.

The inspectors monitored progress of the Unit 2 refueling outage. The licensee has used an effective method to identify to management potentially significant safety or regulatory issues which occur during the outage. Each issue is trended and tracked until resolved. This appears to be helpful in assisting the licensee to manage the outage. Items inspected were replacement of the recirculation piping on the auxiliary feedwater

pumps, inspection of the internals of the motor driven feed pump, maintenance on the main steam isolation valves and installation of new feedwater heaters. Tours were made of the containment during the inspection period. The 10 year ISI inspection was conducted along with a containment Type A test. The outage has progressed well with only minor problems.

Steam generator tube inspections identified numerous cases of boron caked or wetted plugs as discussed in Inspection Report 338,339/90-23. The plugs included a variety of heats susceptible to PWSCC as described in NRC Bulletin 89-01, Failure of Westinghouse Steam Generator Tube Mechanical Plugs and a new heat (NX-6323) which had been used to replace the susceptible heats during the February 1989, refueling outage. The licensee performed ECT on a sample of plugs and detected indications on several. As a result of the findings, the licensee is replacing all hot leg Westinghouse Alloy 600 mechanical plugs with Alloy 690 plugs. Westinghouse has made proper notifications to the NRC.

The licensee also identified a significant axially oriented indication measuring 0.6 inches, located approximately 5 inches above the third support plate on the hot leg side. This indication appears to be the major contributor to excessive primary to secondary leakage which forced the unit to shutdown early as discussed in Inspection Report 338,339/90-23.

SG A and C were placed in category C-3 per TS 4.4.5.0 which means greater than one percent of the inspected tubes required plugging. The licensee will submit the required reports to the NRC.

3. Operational Safety Verification (71707)

The inspectors conducted frequent visits to 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 operational safety, compliance with TS, and to maintain awareness of the overall operation of the facility. Instrumentation and ECCS lineups were periodically reviewed from control room indications 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. Selected reports were followed to ensure that appropriate management attention and corrective action was applied.

a. Equipment Configuration Control Mishaps

On September 29 with Unit 2 defueled, operations was filling portions of the charging pump suction lines when it was reported that water

was coming from the C charging pump cubicle room. It was determined that water had been suing from an open pump drain valve and two inches had accumulated on the floor. The pump suction valve was assumed to have been closed as part of a block tagout, however, its tag had been lifted and the valve was open.

On September 30, approximately 350 gallons of water was lost from the VCT during an attempt to establish the boration flowpath required for fuel loading. It was discovered that tags establishing boundaries had been lifted and one drain valve was open (2-CH-121) and another on the seal water return line was removed (2-CH-MOV-2381).

Although the unit was defueled during the events, the inspectors were concerned with the adequacy of controls for tagging out systems. During the outage many systems are tagged using master tagouts which allow for multiple work activities within the boundary of the tagout. When a boundary valve needs to be worked or tested, the master tagout boundary must be modified. VPAP-1402, Control of Equipment, Tagouts and Tags, allows for a partial clearance (lifted tags) to accomplish this.

Some weaknesses were identified.

- New tags hung to modify the boundary were not linked to the new work activity, therefore, verification that the work activity is completed was not a requirement prior to clearing the new tags. Memorandums issued to correct this problem have been ineffective.

- The large volume of changes to the master tagout due to the testing or maintenance problems leads to personnel errors when clearing tags.

- Inconsistencies in the methods for lifting tags exist in that some shift supervisors will fill out a partial clearance form and others will prepare a new tagout sheet. Administrative procedures do not provide guidance. This leads to different methods of tracking lifted tags.

The licensee has implemented a new log specifically for tracking lifted tags and implemented time constraint requirements for rehanging them. While it appears that the log will assist in maintaining control, better planning methods are needed to minimize the need to juggle master tagout boundaries. This weakness regarding tagout control of equipment will continue to be reviewed as part of the core inspection program.

b. Missing Procedures in the Control Room

On September 25, a candidate being examined by the NRC for an operator license attempted to obtain a copy of 1-AP-10.1, Loss of

Electrical Power, from the control room and found that the procedure was missing. The licensee later determined that 1-AP-3, Loss of Vital Instrumentation was also not in the control room. The licensee typically maintains an inventory of several copies of each AP in the control room. It was suspected that the copies had been depleted by license candidates during the walk-through portions of the NRC exams. Discussions with NRC examiners indicated that on at least two occasions, the shift operators were made aware of depleting inventories on some procedures.

On September 26, the inspectors identified that 1-AP-1.1, Continuous Rod Insertion, was missing. At this point, the licensee took action to correct the problem including replenishing all AP's and making appropriate persons aware of the concern.

The licensee believes the procedures were depleted due to excessive usage by the NRC license candidates. It is, however, unacceptable for personnel to remove the last copy of an AP from the control room as it would not be available for use during an event. The licensee initially did not recognize the extent of the problem until the inspectors found an additional AP missing. Subsequent corrective actions were adequate.

c. Midloop Operations

In preparation for scheduled midloop operations, the inspectors reviewed Generic Letter 88-17 "Loss of Decay Heat Removal" and the licensee's responses in addition to various draindown operating procedures and loss of RHR procedures. A concern was raised with the adequacy of the intended vent path on the hot leg with the loop stop valves shut. The path is through the surge line to the pressurizer and out the opening where the safety valves have been removed. The licensee's response to the Generic Letter did not specifically state that the surge line is connected to the hot leg at 90 degrees and the opening is submerged while drained down and does not uncover until the level is approximately six inches above centerline.

The concern is that inventory could be lost out a cold leg opening due to pressurization until the surge line opening is uncovered. The licensee stated that Westinghouse has analyzed this concern and determined that loss out the cold leg will result in a minor decrease of RCS inventory which will not affect the core. This was not discussed in the licensee's response to expeditious action (8) in the Generic Letter. The inspectors requested the licensee to update their response to address this issue. The licensee is preparing a followup response to the Generic Letter to address this concern.

The inspectors review of the listed items in the Generic Letter indicated licensee compliance. The licensee corrected two items that were identified by operators during the training. One concern was

that the RCS draindown procedures, as implemented, would not have correctly enabled the new RCS level indication and alarm. The second concern involved incorrect guidance on which emergency action level to declare following a loss of RHR for 15 minutes. The outage schedule eventually slipped and RCS inventory was not reduced to midloop.

Corporate Nuclear Safety conducted an assessment of the licensee's program for coping with a loss of decay heat removal capability. The assessment included a detailed review of procedures, controls, testing, maintenance, training and use of operating experience.

Strengths identified included effective prejob briefs, RCS mass balance calculation and good operator and staff sensitivity. Concerns included a lack of procedural guidance for loss of electrical power or instrument air as a precursor for loss of decay heat removal, no specific procedural guidance to quickly restore electrical power using alternate methods, no routine performance testing of RHR heat exchanges, and no procedure available to install the equipment hatch during containment closure. The inspectors reviewed the report and considered the initiative noteworthy and the assessment comprehensive. The licensee is addressing the concerns raised by the assessment team.

d. Operator 12 Hour Shifts

The licensed operator work shift was recently changed from 8 hours to 12 hours. The new 12 hour shift is from 7:00 to 7:00. Five shifts will rotate through a ten week cycle which includes two weeks (8 days) of training. During the cycle, a shift will be scheduled for either three or four consecutive work days followed by three to six days off. Operators generally are enthusiastic about the new schedule as it lends to a lower number of shift turnovers per day (two versus three) and individuals will get more days off.

No violations or deviations were identified.

4. Maintenance Observation (62703)

Station maintenance activities 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 TS requirements.

a. Instrument Air Compressor Preventive Maintenance.

On October 18, 1990, the inspector observed electrical maintenance technicians attempt to perform the lubrication of instrument air compresser 2-IA-C1. The preventive maintenance procedure was a generic procedure for electrical maintenance E-20-L6/C-4, "PM - Electrical Maintenance." A review by the inspector of the

technical manual for the compressor indicated that a General Electric bulletin for the motor was enclosed which covered a variety of motors and was not specific to the compressor motor. The manual indicated that the type of grease to be used was not that stated on the work order.

They correctly questioned the type of grease to be used and obtained the appropriate grease. This, however, indicated a planning weakness in that the incorrect grease was referenced in the work order. The instrument air compressors are new compressors and the work order was based on the type of grease used in the compressors that had been replaced. The inspector requested licensee management to ensure themselves that the preventive maintenance procedures incorporate requirements from the new vendor manuals for the entire instrument air system. Pending completion of licensee review, this is identified as Inspector Followup Item 338/90-25-01: PM Program for IA Compressors.

b. Control Room Chillers

The inspectors noted that there have been numerous instances of the control room chillers tripping automatically for various reasons. The maintenance history of the chillers was reviewed for the last two years and indicated many instances of corrective maintenance. Several of the chiller trips were due to high discharge pressure. The frequency of preventive maintenance was also reviewed and appeared adequate for routine preventive maintenance. The inspector reviewed the present logs to determine what operating parameters are monitored and determined that the logs do not monitor critical parameters. It was also determined that the gages are not calibrated on a periodic frequency and that some gages on the chiller appeared to be reading abnormal. The inspectors attempted to check out the technical manual for the chillers and could not find it in document control or in the maintenance library. The licensee was notified of this problem.

The inspectors contacted the Assistant Station Manager for Operations and Maintenance concerning the log data taken who, in turn, requested engineering to investigate what parameters should be monitored. The inspectors contacted engineering and found that performance tests will be run on the chillers with the aid of a consultant. The tests will determine if the chillers are operating at capacity.

The present TS requires that two chillers per unit be maintained operable to maintain a specific control room temperature. There are presently three chillers per unit which reduces the safety significance of the loss of one chiller. However, improved monitoring methods would preclude chiller trips. Pending development of an improved monitoring program by the licensee, this is identified as Inspector Followup Item 338/90-25-02: Improved Monitoring of Control Room Chillers.

No violations or deviations were identified.

5. Surveillance Observation (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 LCOs were met and that any deficiencies identified were properly reviewed and resolved.

a. Instrumentation Surveillance Procedures

The inspectors reviewed portions of the licensee's procedure writing program for instrumentation procedures. The procedure writing group currently is pursuing several different efforts in parallel including:

1. Technical Revision Maintenance (TRM) to retype instrumentation procedures which currently have numerous pen and ink changes.

2. The addition of coincidence requirements (expected alarms or actuations during testing) to procedures in order to alert operators of an anticipated alarm or actuation. This effort is to meet an NRC commitment in response to previous problems.

3. Procedure upgrade program to reformat procedures to a higher standard.

The inspectors became aware of several problems which have been hindering progress in this area. Numerous procedures issued to meet the NRC commitment for adding coincidence requirements for Unit 2 needed to be changed with a PAR because intended sign off steps were not in the correct location. PARs were required to correct other administrative errors as well. It appeared that the procedure writing group had not allocated enough time to conduct an adequate review to meet the commitment. The licensee is currently working on the Unit 1 coincidence requirements and has allocated more time.

The procedure upgrade program is initially targeting PTs. Technical inaccuracies, identified during the verification and validation phase, appear to be due to incomplete understanding of the systems by the writers and lack of guidance on how to phrase actions and precautions in the procedures. It appears that more effective coordination is needed between procedure writers and I&C; however, the refueling outage demand on I&C resources is inhibiting this effort. Back-to-back scheduled outages will not free up the necessary resources until March, 1991. The procedures group has also had difficulty prioritizing work and allocating resources to adequately support the station's ongoing needs for design change packages, engineering work requests, and various commitments. This has resulted in the inability to maintain established goals for revised procedures. Expectations of management differ from I&C. While I&C would like resources to concentrate on TRM, management is opting for procedure upgrade.

The number of I&C procedures routinely requiring changes is high. The number of I&C procedures which required PARs during September, 1990, was 153. The group with the next highest number of PARs was Operations with 81. The aggregate result of these problems appears to be frustration on the part of the procedure users, I&C technicians.

An incorrect I&C procedure contributed to an event in April, 1990, where the RWST level channels were calibrated nonconservatively rendering the safety function inoperable. While no other significant events have occurred to date due to inadequate procedures, weaknesses in the procedure writing program present this potential. Through performance of routine duties, the inspectors will continue to monitor progress.

b. On October 18, 1990, the inspector observed the following surveillances:

1. 1-PT-71.3 "Auxiliary Feed Pump Test (1-FW-P-3B).

2. 2-PT-82.9H "2H Emergency Diesel Generator Test (Local Operation)."

No violations or deviations were identified.

6. Installation and Testing of Modifications (37828)

a. RCS Level Indication

The inspectors reviewed Design Change 88-11-1 "RCS Draindown Level Indication". This package installs a permanent sight glass in the containment and a level transmitter which reads out in the control room. The control room indication is enabled by operating procedures 1- and 2-OP-5.4 "Draining the Reactor Coolant System."

The installation in the control room and the containment was reviewed by the inspectors. The design change package and test procedures including the hydro tests were also reviewed. The inspectors reviewed the electrical load list, drawings, operating and alarm response procedure and setpoint documents. All documents had been upgraded to include the new design and appeared adequate. No problems were identified with the design change.

b. Potential EDG Overloading Due to IA Compressor Modification

The licensee identified a concern regarding potential overload of the H EDG during a postulated design basis accident due to the addition of the new IA compressors, added as a result of Design Change 89-04. The electrical system analysis of the design change considered the effects on the EDG of removing the old IA compressors and replacing them with the new IA compressors. The conclusion was that the new IA

compressors would demand an additional 12 HP from the H EDG. To alleviate the overloading potential, it was intended to ensure the containment air compressors would not start following a design basis accident. This would remove 15 to 20 HP.

The containment air compressors are normally not running (IA supplies containment loads); however, they are maintained in automatic standby if header pressure drops. This would occur during a design basis accident because the IA header would isolate. Since there are no automatic or administrative barriers to prevent the containment air compressors from starting, the design package required station operating procedures to be revised to ensure the containment air compressors are not started.

During a design review following completion of the IA system installation it was discovered that no administrative measures to prevent starting the containment compressors had been taken. The licensee immediately issued Standing Order 176 to the operating shift to ensure the containment air compressors do not start following a design basis accident. Electrical engineering reviewed the consequence of the event and determined that the EDG would have exceeded to 2000 hours rating of 3000 KW to a value to 3015 KW. The loading would have existed for up to two hours but is within the two hour short term rating of 3150 KW. The evaluation concluded the EDG would have been capable of performing its intended safety function. The inspectors were concerned that the failure to implement the administrative controls was indicative of a design control problem. The licensee's Administrative Procedure 5.28, Procedure Revisions Due to Design Changes, requires each department to review design packages to determine the procedures which will require revision. Although the design package stated "Station Operating Procedures should be revised to take this limitation (no barrier to prevent containment air compressor start) into account," the operations department failed to identify the needed change. The effectiveness of periodic meetings between appropriate groups during the design package generation phase also appeared to be weak in this case in that the procedure revision requirement was not clearly communicated by engineering to operations. This licensee identified violation is not being cited because the enforcement criteria specified in Section V.G.1 of the NRC Enforcement Policy were satisfied. NCV 338/90-25-03: Failure to Implement Procedure Revisions for Instrument Air Design Change.

One noncited violation was identified.

7. LER Followup (92700)

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 and that generic applicability had been considered. Additionally, the inspectors confirmed that

unreviewed safety questions were involved and that violations of regulations or TS conditions had been identified.

(Closed) LER 339/89-02: Entering LCO 3.0.3 During Hydrostatic Testing of the LHSI Lines. The licensee entered LCO 3.0.3 due to isolation of both trains of LHSI while in mode 3 in order to perform 10 year hydrostatic testing of portions of the reactor coolant system. The event was preplanned and approved with the knowledge that it would be reportable and had appropriate administrative controls to ensure availability if needed. The duration of the event was 41 minutes.

8. Followup of Operational Events (93702)

On September 24, 1990, at 0708, the licensee declared a NOUE due to the process vent gaseous radiation monitor (RM-GW-102) reading offscale high, greater than 1 E6 cpm. The licensee was performing maintenance on a leaking outlet valve (1-CH-29) for the Unit 1 mixed bed demineralizer (1-CH-I-1A). Following repairs to the valve, the demineralizer was vented to the process vent system and an attempt to fill with primary grade water was initiated. Operators initially noticed no flow rate when the fill path was opened, however, at this point, RM-GW-102 alarmed and the indication went off scale high. The alarm cleared and the radiation monitor came back on scale approximately one minute later.

Operators observed the trace from a redundant Kaman radiation monitor to peak at 1 E-2 microcuries per cubic centimeter and decay away over the next several minutes. The event was terminated at 0730.

The licensee determined the release to be approximately 0.6% of the Technical Specification release limits. Generically, this is not the threshold for declaring an NOUE, however, EPIP 1.01, Emergency Action Level Table, Radioactivity Event, requires an NOUE if RM-GW-102 reads greater than 1 E6 cpm. This apparently is a conservative requirement due to the instrument being offscale at greater than 1 E6. The procedure did not reference the Kaman monitor, which has a larger scale.

The license is reviewing their Emergency Action Level Table to more appropriately use the Kaman monitor to determine if an NOUE is required. The licensee suspects the reason for the unplanned release was that the primary grade water header was pressurized due to valve leakby and caused excessive flow to the demineralizer.

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

(Closed) Inspector Followup Item 338, 339/89-30-05: Development of Abnormal Procedures and an Engineering Review of Breaker Size Relating to 120V AC Vital Bus Power Supplies. On October 17, 1989, Unit 1 experienced a loss of 120V AC vital bus power to a primary process rack when a feeder breaker opened. The licensee determined the primary power supply input

transformer had shorted. The primary and backup power supplies are in parallel and each protected by a 30A fuse and 35A circuit breaker. A single 30A feeder breaker supplies the two power supplies. When the primary power supply shorted, the protective device coordination was such that the single 30A feeder breaker tripped instead of the faulted power supply fuse or breaker, thus losing both the primary and backup power supplies. Operator action to prevent a reactor trip was required when power was lost to the feedwater regulating valves.

The licensee revised annunciator response procedures to instruct operators to refer to a load list and to notify the instrument shop of the failure. The licensee also conducted a design study (NP 2323) which revealed inadequate protective device coordination and recommended separate feeder circuits for each backup power supply in the primary and secondary process racks and a preventive maintenance program which would replace either the power supply or selected components to help prevent inadvertent failures in the future.

System engineering determined that a modification is not warranted based on event frequency and relative payback. System engineering also stated that the annunciator response procedure would ensure the primary power supply would be isolated by I&C upon notification from operations. The inspectors believe, however, that a fault could still deenergize both the primary and backup power supplies. The consequences of this would be a loss of one of four channels of protection and a potential reactor trip. While the plant is designed for such a transient, the inspectors concluded that corrective action in this case was minimally acceptable.

(Closed) Inspector Followup Item 338/90-15-02: Policy Development for Testing Lineups Rendering Equipment Inoperable. The licensee developed guidance for ensuring that applicable TS action statements are entered when equipment is rendered inoperable due to surveillance test lineups. Instructions to the Shift Supervisor were provided in Operations Standard: System Status During Periodic Testing.

(Closed) Violation 338/89-28-03: Failure to Comply With Action Statement Requirements of TS 3.6.2.2 by Rendering Two Containment Spray Systems Operable. The licensee performed a HPES evaluation of the event and determined that it was caused by poor communication and personnel error concerning the current implementation of the tagout. The event was discussed during training of the RO/SRO class and the lessons learned was incorporated into the SRO supervisory skills training.

(Closed) Violation 338,339/89-08-02: Violation of TS 4.6.1.1.A.1 for Containment Vent and Drain Isolation Valves. The licensee reviewed 1- and 2-PT-60.1, Containment Integrity, and 1- and 2-PT-1E, Containment Checklist to incorporate permanent changes which verify that containment LMC's are closed and capped.

(Closed) P2188-10: ASCO NP8314 Series Solenoid Valves Assembled with P80 Lubricant May Stick in Energized Position Due to Solidification of P80.

The notification by ASCO identified two of the suspect solenoid valves sold to the licensee. The licensee determined the two valves were purchased under Purchase Order NS30449, line item 001, stock item 07604500, however, the valves were never issued and were subsequently obsolete. The valves are no longer held in stock.

10. Exit (30703)

The inspection scope and findings were summarized on October 22, 1990, 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.

Item Number	Description and Reference
IFI 338/90-25-01	PM Program For IA Compressors (paragraph 4.a)
IFI 338/90-25-02	Improved Monitoring of Control Room Chillers (paragraph 4.b)
NCV 338/90-25-03	Failure to Implement Procedure Revisions for Instrument Air Design Change (paragraph 6.b)

11. Acronyms and Initialisms

AC - ALTERNATING CURRENT
AP - ABNORMAL PROCEDURE
CFR - CODE OF FEDERAL REGULATIONS
CPM - COUNTS PER MINUTE
ECT - EDDY CURRENT TESTING
EDG - EMERGENCY DIESEL GENERATOR
EPIP - EMERGENCY PLAN IMPLEMENTATION PROCEDURES
HP - HORSEPOWER
HPES - HUMAN PERFORMANCE EVALUATION SYSTEM
IA - INSTRUMENT AIR
I&C - INSTRUMENTATION AND CALIBRATION
IFI - INSPECTOR FOLLOWUP ITEM
ISI - INSERVICE INSPECTION
KW - KILOWATTS
LCO - LIMITING CONDITIONS FOR OPERATION
LER - LICENSEE EVENT REPORT
LHSI - LOW HEAD SAFETY INJECTION
LMC - LOCAL MONITORING CONNECTION
NCV - NONCITED VIOLATION
NOUE - NOTICE OF UNUSUAL EVENT
NRC - NUCLEAR REGULATORY COMMISSION
PAR - PROCEDURE ACTION REQUEST
PPM - PARTS PER MILLION
PT - PERIODIC TEST
PWSCC- PRIMARY WATER STRESS CORROSION CRACKING
RCS - REACTOR COOLANT SYSTEM
RHR - RESIDUAL HEAT REMOVAL
RO - REACTOR OPERATOR
RWST - REFUELING WATER STORAGE TANK
SG - STEAM GENERATOR
SRO - SENIOR REACTOR OPERATOR
TRM - TECHNICAL REVISION MAINTENANCE
TS - TECHNICAL SPECIFICATION
VCT - VOLUME CONTROL TANK