U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-454, 50-455
License Nos:	NPF-37, NPF-66
Report No:	50-454/97009(DRP); 455/97009(DRP)
Licensee:	Commonwealth Edison Company
Facility:	Byron Generating Station, Units 1 & 2
Location:	4450 N. German Church Road Byron, IL 61010
Dates:	May 27 through June 5, 1997
Inspectors:	S. Burgess, Byron Senior Resident Inspector A. Vegel, Zion Senior Resident Inspector P. Lougheed, Region III Inspector
Approved by:	Roger D. Lanksbury, Chief, Reactor Projects, Branch 3

EXECUTIVE SUMMARY
Byron Generating Station, Units 1 & 2
NRC Inspection Report 50-454/97009, 50-455/97009

This inspection focused on the circumstances involving the failure to vent the chemical and volume control (CV) system in accordance with the technical specifications (TS). Also inspected was Byron's performance of surveillances in general and the operability assessment process when surveillances identify problems/concerns.

Operations

- The inspectors identified a missing support bracket on the 1B SI pump lube oil cooler which the licensee later determined rendered the 1B SI pump inoperable due to not meeting proper seismic requirements. The inspectors considered the licensee's operability assessment and corrective actions prompt and appropriate (Section O2.1).

Maintenance/Surveillance

- After the licensee identified in February 1996 that the CV pump casings and discharge piping high points were not vented as required by TS 4.5.2.b.1, they failed to recognize the need to be in strict compliance with the TS. The inspectors determined that the operability assessment performed by Byron engineering failed to recognize that TS requirements were not being met and a TS change was needed. After identification by the NRC of the issue, the licensee appropriately began preparations and commenced reducing power prior to receiving relief from the TS shutdown requirements. The failure to vent the CV system in accordance with the TS is an apparent violation (Section M1.1).

- The inspectors concluded that the licensee had not vented one discharge piping high point for train 1B of the RH system. This is an apparent violation. Upon identification, the licensee took appropriate corrective actions. The inspectors considered RH heat exchanger and the suction piping high points venting a good practice (Section M1.2).

- The licensee identified that TS required slave relay testing for 10 phase "A" containment isolation valves had not been performed as required by the TS since mid-1991. The inspectors considered the licensee's efforts in identifying additional missed TS surveillance requirements as being proactive. The inspectors' independent review determined that two separate onsite reviews failed to identify that TS requirements were not met with the surveillance procedure revision alone. Two examples of an apparent violation were identified (Section M1.3).

- The inspectors concluded that past auxiliary feedwater (AF) pump surveillance testing was adequately documented and that problems encountered during the tests appeared to have been identified and dispositioned in accordance with corrective action procedures (Section M1.4).

- The inspectors identified that the surveillance procedures used to vent the SI pumps were inadequate in that they provided no direction to the operator as to proper valve line-up to ensure proper pump venting. This is considered an apparent violation. Numerous opportunities existed to identify this inadequate procedure in that operators routinely had to perform extra unapproved steps in order to vent the SI system (Section M3.1).

- The inspectors observed a number of documentation weaknesses in problem identification forms and operability assessments as evidenced in the limited written information that supported operability assessment conclusions. However, in all cases, followup questioning by the inspectors found that the responsible individuals had additional information to support the conclusion (Section M7.1).

REPORT DETAILS

I. Operations

O2 Operational Status of Facilities and Equipment

O2.1 Missing Support on 1B Safety Injection (SI) Pump Lube Oil Cooler

a. Inspection Scope (71707)

The inspectors walked down accessible portions of the SI, auxiliary feedwater (AF), and chemical and volume control (CV) systems for high point vents, evidence of water hammer, and system material condition.

b. Observations and Findings

On May 27, 1997, the inspectors identified a missing support bracket on the 1B SI pump lube oil cooler. Operations requested an operability assessment, which determined that the 1B SI pump should be declared inoperable because the 1B SI pump lube oil cooler did not meet the seismic design requirements due to the missing support bracket under the cooler end bell. Operations entered the appropriate limiting condition for operation (LCO) action requirement and a work request was written to install the missing support bracket. The licensee initiated efforts to determine the cause of the missing support bracket through past maintenance work performance, but had not completed the review prior to the inspection end date. This item will be followed with the review of the Licensee Event Report (LER), which will document this issue.

c. Conclusions

The inspectors identified a missing support bracket on the 1B SI pump lube oil cooler, which the licensee later determined rendered the 1B SI pump inoperable due to not meeting proper seismic requirements. The inspectors considered the licensee's operability assessment and corrective actions prompt and appropriate.

II. Maintenance

M1 Conduct of Maintenance/Surveillances

M1.1 Surveillance Observations (61726)

a. Inspection Scope

The inspectors reviewed technical specification (TS) surveillance requirements to vent the emergency core cooling systems (ECCS) pump casings and discharge piping high points outside of containment. The inspectors also reviewed the

applicable surveillance procedures and discussed the issue with the licensee and the NRC office of Nuclear Reactor Regulation.

b. Observations and Findings

TS Surveillance Not Met For CV System Venting

On May 22, 1997, during a review of TS surveillance requirements to vent the ECCS pump casings and discharge piping high points outside of containment, the inspectors identified that TS surveillance 4.5.2.b.1 had not been performed as required. Specifically, the Unit 1 and Unit 2 CV (an ECCS subsystem) pump casings and the CV high points had never been vented during Modes 1, 2, and 3; a time period that exceeded the TS requirement of venting at least once per 31 days.

When questioned, the licensee informed the inspectors that on February 16, 1996, the Byron staff documented (through the problem identification form (PIF) process) that a Braidwood system engineer identified that the CV pump casings and high point vents were not vented as required by TS 4.5.2.b.1, partially due to the fact that the CV pump casing design did not have vents. Byron operability assessment 96-007, dated February 16, 1996, stated that there was no technical concern with the lack of casing vents on the CV pumps or the lack of venting on the CV system every 31 days due to the intent of the TS being met. The operability assessment determined that the intent of TS 4.5.2.b.1 was to ensure that air entrapment did not occur in systems or lines that were stagnant or idle. Byron engineering credited the dynamic venting action of the operating CV pump as meeting the TS requirement to ensure that the ECCS piping was full of water. For piping not directly in the flowpath, the licensee determined that gas accumulation was not credible due to the high pressure (approximately 2400 psi) inside the piping. The licensee considered the idle CV pump to be self-venting due to CV system design and piping configuration.

The NRC determined that operating the CV pump constituted flushing the line versus venting the line and also noted that the CV high point vent valve, outside of containment (1/2SI045), was not subject to system flow and could be an area susceptible to air/gas accumulation. Although ComEd considered all CV pumps to be operable, the licensee was not in strict compliance with the TS requirements to vent the CV pump casing and discharge piping high points.

On May 22, 1997, the licensee declared both trains of the CV system inoperable following several conference calls held by Region III and NRR with the licensee. TS 3.0.3 was entered for both units due to both trains of ECCS being inoperable and TS 4.0.3 was entered due to the missed surveillances. Entering TS 4.0.3 allowed the action requirements of TS 3.0.3 to be delayed for up to 24 hours to complete the surveillance testing. Failure to vent the CV system in accordance with the TS once per 31 days since initial plant operation was considered an example of an apparent violation of TS 4.5.2.b.1 (EEI 50-454/455-97009-01a(DRP)).

Because the CV pump casing design could not accommodate venting and because the licensee considered the CV system piping venting inappropriate due to the constant high pressure in the system, ComEd requested a Notice of Enforcement Discretion (NOED) from the NRC on May 23, 1997. A TS amendment request that modified the wording of TS 4.5.2.b.1 was also submitted. In support of the requests, on May 22-23, 1997, the licensee performed compensatory actions of ultrasonically testing (UT) the vulnerable high point areas in the CV system piping and verified that the piping was filled with water.

On May 23, 1997, the licensee began preparations to shut down both units if the NOED was not approved within the 24-hour time clock initiated by TS 4.0.3. The inspectors observed the shift begin to reduce power on Unit 1 until the NRC staff approved the NOED on May 24, 1997. After notification of NOED approval, the unit was returned to full power. At the writing of this report, the NRC staff (NRR) was reviewing the license TS amendment request.

c. Conclusions

After the licensee identified in February 1996 that the CV pump casings and discharge piping high points were not vented as required by TS 4.5.2.b.1, they failed to recognize the need to be in strict compliance with the TS. The inspectors determined that the operability assessment performed by Byron engineering failed to recognize that TS requirements were not being met and a TS change was needed. The licensee appropriately began preparations and commenced reducing power prior to receiving relief from the TS shutdown requirements.

M1.2 Missed High Point Vent on the Residual Heat Removal (RH) System (61726)

a. Inspection Scope

The inspectors compared surveillance procedures 1/2 BOS 5.2.b-1 to the piping and instrumentation diagrams (P&ID) for both units on the SI and RH systems. Specific P&ID sheets reviewed were:

- M61 Safety Injection Unit 1
- M62 Residual Heat Removal Unit 1
- M136 Safety Injection Unit 2
- M137 Residual Heat Removal Unit 2

b. Observations and Findings

The inspectors confirmed that the valves listed in the surveillance procedures for the SI and RH systems were identified on the P&IDs as high-point vents. The inspectors noted that, for both the SI and RH systems, the licensee included suction side high point vents as well as the required discharge piping high points. The licensee also vented the RH heat exchangers. The inclusion of the suction high points and the RH heat exchangers in the surveillance were considered good practices.

The inspectors identified that high point vent valve, 1RH027, was not included in the surveillance. This valve was located in the discharge piping from the 1B RH heat exchanger and was outside of containment. The inspectors did not identify similar high point vents for the 1A RH heat exchanger or for either of the Unit 2 heat exchangers. The inspectors discussed with the licensee the failure to include valve 1RH027 within the surveillance. The licensee promptly agreed that 1RH027 was a high point valve, revised the surveillance procedures, and performed the venting. The licensee also reviewed the isometrics for the other RH train on Unit 1 and both trains on Unit 2 and confirmed that high points did not exist in those lines between the RH heat exchangers and the containment.

TS Surveillance 4.5.2.b(1) required the licensee to vent the ECCS pump casings and discharge piping high points outside of containment every 31 days. This surveillance requirement was met through completion of surveillance procedures 1/2 BOS-5.2.b-1 every month. The failure to include RH discharge piping high point vent 1RH027 in the surveillance procedures resulted in the high point not being vented as required by the TS. This is an example of an apparent violation of TS 4.5.2.b(1) (EEI 50-454/455-97009-01b).

c. Conclusions

The inspectors concluded that the licensee had not vented one discharge piping high point for train 1B of the RH system and is an apparent violation. Upon identification, the licensee took appropriate corrective actions. The inspectors considered RH heat exchanger and the suction piping high points venting a good practice.

M1.3 TS Surveillance Requirements Not Met for Slave Relay Testing (61726)

a. Inspection Scope

The licensee identified that TS required slave relay testing for 10 phase "A" containment isolation valves had not been performed. The inspectors reviewed the licensee's corrective actions to properly test the slave relays.

b. Observations and Findings

Based on the issues raised by the NRC on the CV system, Byron reviewed TS operating surveillances and identified 6 (3 per unit) additional surveillances where TS requirements were not met. Specifically, quarterly slave relay testing of the automatic actuation logic and relays for 10 phase "A" containment isolation valves, had not been performed since mid-1991. This testing was required by TS 4.3.2.1, Table 4.3-2, Functional Unit 3.a.2.

The inspectors reviewed a September 25, 1990, Westinghouse letter which informed Byron that performing quarterly slave relay containment isolation tests on the CV charging line valves, 1/2CV8105 and 1/2CV8106, and CV letdown line valves, 1/2CV8152 and 1/2CV8160, could result in unanalyzed thermal transients

on the CV piping and nozzles and a high fatigue usage factor. To minimize further thermal cycling, Westinghouse recommended that the "GO" testing in which the valves were actually stroked be changed to "NO GO" testing in which the valves were not actually stroked but a visual verification and/or electrical continuity test of the slave relay contact actuation was performed.

In response to the concern, Byron reviewed applicable surveillance procedures and determined that the CV charging line valves were already tested with the "NO GO" methodology. To address the CV letdown valves, Byron revised procedures 1/2 BOS 3.2.1-840, "ESFAS Instrumentation Slave Relay Surveillance (Train A Containment Isolation Phase A - K605)," and 1/2 BOS 3.2.1-850, "ESFAS Instrumentation Slave Relay Surveillance (Train B Containment Isolation Phase A - K605)," on June 13, 1991. The revision jumpered across the CV letdown line valves contacts. The revisions successfully prevented valve actuation when performing the TS quarterly surveillance; however, a visual verification and/or electrical continuity test of the slave relay contact actuation was never performed as recommended by the vendor and required by TS. Failure to perform the continuity test for the slave relay contacts that actuate letdown isolation valves 1CV8152, 1CV8160, 2CV8152, and 2CV8160, on a quarterly basis since June 13, 1991, is considered to be an example of an apparent violation of TS 4.3.2.1 (EEI 50-454/455-97009-02a(DRP)).

Although not specifically identified by the Westinghouse letter, Byron determined that the CV letdown orifice isolation valve (1/2CV8149A/B/C) slave relay testing should also be changed to a "NO GO" test for the same thermal transient concerns. Although the 6 (3/unit) letdown orifice isolation valves were not containment isolation valves, the valves received a phase "A" containment isolation signal.

To address the CV letdown orifice isolation valves, the licensee revised procedures 1/2 BOS 3.2.1-853, "ESFAS Instrumentation Slave Relay Surveillance (Train A(B) Containment Isolation Phase A - K612)," on April 29, 1991. The revision pulled fuses on the letdown orifice isolation valves. The revisions successfully prevented valve actuation when performing the TS required quarterly surveillance; however, a visual verification and/or electrical continuity test of the slave relay contact actuation was also never performed. Failure to perform the continuity test for the slave relay contacts that actuate letdown orifice isolation valves 1CV8149A/B/C and 2CV8149A/B/C on a quarterly basis since April 29, 1991, is considered an example of an apparent violation of TS 4.3.2.1 (EEI 50-454/455-97009-02b(DRP)).

The inspectors reviewed On-Site Review (OSR) 90-257, dated August 18, 1990, which approved revision of the surveillance procedures. In 1992, the licensee submitted a modification for the installation of test circuits that would provide a permanent method of visually verifying the slave relay contact actuation testing the relays at power. In parallel to the potential modification, Byron's regulatory assurance department was working with the Westinghouse Owner's Group to investigate the possibility of a change to TS 3/4.3.2, which would reduce the frequency of testing from quarterly to once every 18 months. This TS change would enable "GO" testing of the valves during refuel outages when the thermal

transient concerns were minimized. The potential modification was put on hold until approval or rejection of the proposed TS change. Neither the modification or the TS change had been approved.

The inspectors also reviewed OSR 93-057, dated July 18, 1993, which documented Byron's position for accepting the testing method used for the CV letdown isolation valves. The OSR referenced Byron UFSAR Section 7.1.2.6, which presented justification for alternate testing methods for ESFAS equipment which could not be tested at power. The UFSAR stated, in part, that alternate testing methods were appropriate when there was no practicable means of testing the equipment without adversely affecting the safety or operability of the plant and when adequate testing could be routinely performed while the reactor was shut down. The inspectors were informed that the OSR considered the associated thermal transients adverse to the safety of the plant and therefore, "GO" testing of the CV letdown isolation valves should not be conducted at power. The OSR documented that although the jumper prevented a positive means for verifying valve actuation, the surveillance still proved that the relay had energized in that other equipment had been actuated by other relay contacts. The OSR also cited that the valves were "GO" tested every 18 months (every refuel outage) to satisfy other TS surveillance requirements.

The inspectors noted that the proposed modification would have provided a practical means of testing the valves at power without any adverse affect on the plant. Modification installation would have also satisfied the TS surveillance requirement.

c. Conclusions

The inspector's considered the licensee's efforts in identifying the missed TS surveillance requirements to be proactive. The inspectors independent review determined that OSR 90-257 and 93-057 failed to identify that TS requirements were not met with the surveillance procedure revision alone.

M1.4 Auxiliary Feedwater Pump Surveillance Testing (61726)

a. Inspection Scope

The inspectors conducted a review of past monthly, quarterly, and outage surveillance tests of the Unit 1 and 2 motor driven and diesel driven AF pumps. The inspectors interviewed licensee staff including operations and engineering personnel. The following procedures were also reviewed:

- 1/2 BOS 7.1.2.1.B-2, "Diesel Driven Auxiliary Feedwater Pump Quarterly Surveillance"
- 1/2 BOS 7.1.2.1.a-4, "Diesel Driven Auxiliary Feedwater Pump Monthly Surveillance"
- 1/2 BVS 7.1.2.1.b.2-1, "Auxiliary Feedwater Pump Emergency Actuation Signal Verification Test"

b. Observations and Findings

The inspectors reviewed completed TS required surveillance procedures pertaining to the AF pumps from October 1995 through the present. The inspectors noted that the surveillances properly documented required data and initiated corrective actions such as PIFs and operability assessments when problems were noted.

During the surveillance review, the inspectors noted that prior to the start of the testing, procedure 1/2 BVS 7.1.2.1.b.2-1 required the manual start of the pre-lubrication pumps for the AF pumps. The inspectors were concerned that manually starting the pre-lubrication pumps preconditioned the AF pumps prior to performance of the surveillances. As documented in PIF B1997-01907, the licensee subsequently determined that based on pre-operational testing, which included successful AF pump starts without pre-lubrication, and system design documentation, the practice of pre-lubrication did not represent a concern for pump operability. The licensee concluded that the safety benefit of pre-lubrication prior to surveillance testing outweighed the benefit of testing the pumps in the as-found condition when considering the possibility of accelerated wear and premature failure. The inspectors discussed this issue with NRR who agreed with the licensee's conclusion.

c. Conclusions

The inspectors concluded that past AF pump surveillance testing was adequately documented and that problems encountered during the tests appeared to have been identified and dispositioned in accordance with corrective action procedures.

M3 Maintenance/Surveillance Procedures and Documentation

M3.1 Inadequate Surveillance Procedure (61726)

a. Inspection Scope

The inspectors reviewed surveillance procedures 1BOS 5.2.b-1, "ECCS Venting and Valve Alignment Monthly Surveillance," Revision 5, and 2BOS 5.2.b-1, "ECCS Venting and Valve Alignment Monthly Surveillance," Revision 4, for monthly verification of proper ECCS venting of piping outside containment in Modes 1, 2, and 3 per TS 4.5.2.b(1). The inspectors also discussed PIFs B1997-01746, B1997-01792, and B1997-01805, which documented difficulties in venting the 2A and 1B safety injection (SI) pumps.

b. Observations and Findings

SI Pump Casing Venting

On May 15, 1997, the licensee performed surveillance procedure 2BOS 5.2.b-1, for monthly venting of the 2A SI pump. Step F.1 stated to vent the SI pumps and piping until a steady stream of water was evident. Step F.1.b required the operator to open SI pump casing vent isolation valve 2SI040 and vent the pump. The operator reported that only one drop per second came out of the drain piping when he opened valve 2SI040 and the filtered vent (VF) drain valve, 2VF019. PIF B1997-01746 was written and documented that the piping would be checked for potential blockage due to dried boron build-up. The PIF also stated that other SI pump vents have been found in the past to be blocked by dried boron. Operations determined that the 2A SI pump remained operable since the pump was adequately vented by running it periodically to fill the SI accumulators. The surveillance was also determined to be satisfactorily performed since some water and no air came out of the drain line.

On May 20, 1997, the licensee performed surveillance procedure 1BOS 5.2.b-1, for venting the 1B SI pump. During the surveillance, the operator reported that no flow came from the vent line and wrote PIF B1997-01792 to document this concern. The system engineer along with operations, reviewed the concern on May 21, 1997, and reported that a steady stream of water was evident when the surveillance steps were re-performed. The inspectors questioned how the VF line became unplugged with no maintenance performed. The system engineer stated that because of known problems with the blocked VF system lines, operators relied on other valves in the VF system to perform the SI pump casing venting. SI pump venting was usually accomplished by opening VF drain valve lines that opened to a floor drain. Although these valves were not mentioned in the surveillance procedure, most operators knew how to perform the surveillance in this manner. In this case, the operator who attempted to vent the 1B SI pump on March 20 apparently was not aware that valve 1VF017 had to be opened to vent the 1B SI pump casing.

The inspectors reviewed procedures 1/2 BOS 5.2.b-1 and determined that the procedure was inadequate to ensure that TS 4.5.2.b(1) requirements were met. In both procedures the operator was directed to open 1/2SI040 valve to vent the SI pump casings. Although a sightglass was located downstream of the opened valve to verify flow through the piping, no mention of the sightglass appeared in the procedure. The inspectors noted that all of the SI pump sightglasses were dirty and questioned whether any flow could be seen by an operator. Also, the sightglass for the 1B SI pump was located approximately 15 feet above the pump where flow could only be verified with the use of a ladder. The inspectors also noted a total of 5 action requests (ARs) on both trains of the SI pumps. Two ARs on the 1A SI pump documented that pump casing vent isolation valve 1SI040A, leaked by and the sightglass needed to be cleaned. Two ARs on the 1B SI pump documented pump casing vent isolation valve 1SI040B, leaked by and the vent line was plugged with dried boron. One AR on the 2A SI pump documented that the pump casing

vent drain line was also plugged. Since operators routinely had to perform additional steps not included in the procedure in order to vent the SI system, numerous opportunities existed for the inadequate procedure to be identified.

The inspectors considered procedures 1/2 BOS 5.2.b-1 inadequate to ensure that the SI pump casings were vented. Specifically, the procedure provided no specific direction to the operator as to what valves were to be open to vent the SI pumps. Because Byron had documented problems with blockage of the filtered vent system, venting the SI pumps had been performed with steps other than those called out in the procedure. Failure to ensure that procedures 1/2 BOS 5.2.b-1 contain procedural steps for ensuring that the SI pump casings were vented is considered to be an apparent violation (EEI 50-454/455-97009-03(DRP)).

c. Conclusions

The inspectors identified that the surveillance procedures used to vent the SI pumps were inadequate in that they provided no direction to the operator as to proper valve line-up to ensure proper pump venting. This is considered an apparent violation. Numerous opportunities existed to identify this inadequate procedure in that operators routinely had to perform extra unapproved steps in order to vent the SI system.

M7 Quality Assurance in Maintenance/Surveillance Activities

M7.1 Review of Problem Identification Forms and Operability Assessments (37551)

The inspectors reviewed a listing of all PIFs and operability assessments dealing with surveillance issues over the last 2 years. The inspectors reviewed PIFs and operability assessments determinations where problems occurred during a surveillance or those affecting the SI, RH, and AF systems. The inspectors observed a number of documentation weaknesses in that limited written information was available to support operability assessment conclusions. However, in all cases, the responsible individuals had additional information to support the conclusions. The inspectors concluded that the licensee reached the correct operability decision in each PIF and operability assessment reviewed. The inspectors had no further concerns.

V. Management Meetings

X1 Exit Meeting Summary

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on June 5, 1997.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

K. Kofron, Byron Station Plant Manager
B. Adams, Site Engineer
D. Brindle, Regulatory Assurance Supervisor
R. Freidel, Primary Group Leader
T. Gierich, Operations Manager
J. Horn, System Engineer
P. Johnson, Engineering Superintendent
B. Kouba, Business Manager
K. Passmore, Station Support & Engineering Supervisor
P. Reister, Assistant Engineering Supervisor
T. Schuster, Site Quality Verification Director
M. Snow, Work Control Superintendent
W. Walter, U-2 Operating Engineer
D. Wozniak, Engineering Manager

INSPECTION PROCEDURES USED

IP 37551: Onsite Engineering
IP 61726: Surveillance Observations
IP 71707: Plant Operations

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

EEI 50-454/455-97009-01a	EEI	Failure to vent the CV pump casings and the CV discharge piping per TS 4.5.2.b.1.
EEI 50-454/455-97009-01b	EEI	Failure to vent CV discharge piping high point vent 1RH027 per TS 4.5.2.b.1.
EEI 50-454/455-97009-02a	EEI	Failure to perform continuity test for the slave relay contacts for the CV letdown isolation valves per TS 4.3.2.1.
EEI 50-454/455-97009-02b	EEI	Failure to perform continuity test for the slave relay contacts for the CV letdown orifice isolation valves per TS 4.3.2.1.
EEI 50-454/455-97009-03	EEI	Inadequate surveillance procedure for venting SI pumps.

LIST OF ACRONYMS USED

AF	Auxiliary Feedwater
AR	Action Request
BOS	Byron Operating Surveillance
BVS	Byron System Engineering Surveillance
CV	Chemical and Volume Control
ECCS	Emergency Core Cooling System
LCO	Limiting Condition for Operation
LER	Licensee Event Report
NOED	Notice of Enforcement Discretion
NOV	Notice of Violation
OSR	On-Site Review
P&ID	Piping & Instrumentation Diagrams
PDR	Public Document Room
PIF	Problem Identification Form
RH	Residual Heat Removal
SI	Safety Injection
TS	Technical Specification
UT	Ultrasonic Testing
VF	Filtered Vent