

January 24, 2001

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
Commonwealth Edison Company
ATTN: Regulatory Services
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: BYRON INSPECTION REPORT 50-454-00-19(DRP); 50-455-00-19(DRP)

Dear Mr. Kingsley:

On December 31, 2000, the NRC completed an inspection at the Byron 1 and 2 reactor facilities. The enclosed report documents the inspection findings which were discussed on December 28, 2000, with Mr. R. Lopriore and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

No findings of significance were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available **electronically** for public inspection in the NRC Public Document Room **or** from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS)*. *ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).*

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Michael J. Jordan, Chief
Reactor Projects Branch 3

Docket Nos. 50-454; 50-455
License Nos. NPF-37; NPF-66

Enclosure: Inspection Report 50-454-00-19(DRP);
50-455-00-19(DRP)

See Attached Distribution

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-454; 50-455
License Nos: NPF-37; NPF-66

Report No: 50-454-00-19(DRP); 50-455-00-19(DRP)

Licensee: Commonwealth Edison Company

Facility: Byron Generating Station, Units 1 and 2

Location: 4450 N. German Church Road
Byron, IL 61010

Dates: November 16 - December 31, 2000

Inspectors: E. Cobey, Senior Resident Inspector
B. Kemker, Resident Inspector
K. Green-Bates, Reactor Engineer
W. Scott, Reactor Engineer
D. Jones, Reactor Engineer
C. Thompson, Illinois Department of Nuclear Safety

Approved by: Michael J. Jordan, Chief
Reactor Projects Branch 3
Division of Reactor Projects

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

Reactor Safety

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Radiation Safety

- Occupational
- Public

Safeguards

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

SUMMARY OF FINDINGS

IR 05000454-00-19, IR 05000455-00-19, on 11/16-12/31/2000; Commonwealth Edison Company, Byron Generating Station, Units 1 & 2. Resident Inspector Report.

The baseline inspection was conducted by resident inspectors and regional reactor engineers.

A. Inspector Identified Findings:

No findings of significance were identified in any of the cornerstones.

B. Licensee Identified Violations:

Violations of very low significance which were identified by the licensee have been reviewed by the inspector. Corrective actions taken or planned by the licensee appear reasonable. These violations are listed in Section 4OA7 of this report.

Report Details

Summary of Plant Status

The licensee operated Unit 1 and Unit 2 at or near full power for the duration of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather

a. Inspection Scope

The inspectors evaluated the licensee's preparations for adverse weather conditions during the winter months (i.e., below freezing temperatures and accumulation of ice and snow), which could potentially lead to loss of offsite power or loss of mitigating systems. The inspectors walked down the emergency diesel generator rooms, the ultimate heat sink, and other areas of the station potentially affected by cold weather to inspect insulated and trace heated piping and components, operation of area space heaters, and closure of outside air dampers. The inspectors selected the emergency diesel generators and the ultimate heat sink because they were identified as risk significant in the licensee's risk analysis. The inspectors interviewed operations and maintenance department personnel and reviewed applicable portions of the Updated Final Safety Analysis Report and the procedures listed below.

- Byron Operating Procedure (BOP) SX-T2, "SX [Essential Service Water] Tower Operation Guidelines," Revision 7
- BOP VD-5, "DG [Diesel Generator] Room Ventilation System Operation," Revision 4
- BOP XFT-1, "Cold Weather Operations," Revision 0
- Unit 0 Byron Operating Surveillance Requirement Procedure (OBOSR) SY-W1, "Unit Common 345 KV [Kilovolt] Switchyard Weekly Surveillance," Revision 4
- OBOSR XFT-A1, "Freezing Temperature Equipment Protection," Revision 5

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for cold weather related issues documented in the following condition reports.

- B1999-00026 Switchyard Ring Bus Degradation Due to ACB [Air Circuit Breaker] Solenoid Valves Leaking Air
- B1999-03445 Timeliness of the Plant Winterization
- B1999-04322 Annual Perimeter Camera Surveillance
- B1999-04425 Deficiencies in Cold Weather Surveillance
- B1999-04471 Freeze Protection Surveillance

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

The inspectors verified the alignment of the 0A essential service water (SX) makeup train while the 0B SX makeup train was out-of-service for maintenance. The SX system was selected because it was identified as risk significant in the licensee's risk analysis. The inspectors performed walkdowns of the accessible portions of the system and verified the system lineup and each of the system operating parameters. The inspectors also reviewed the applicable portions of the Updated Final Safety Analysis Report, the Technical Specifications, and the procedures listed below.

- BOP SX-E3, "Essential Service Water System Electrical Lineup (Unit 0)," Revision 7
- BOP SX-M1, "Essential Service Water System Valve Lineup," Revision 22

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors examined the plant areas listed below to observe conditions related to fire protection.

- Auxiliary Building General Area 346 Foot Elevation (Zone 11.2-0)
- Auxiliary Building General Area 364 Foot Elevation (Zone 11.3-0)
- Auxiliary Building General Area 383 Foot Elevation (Zone 11.4-0)
- Auxiliary Building General Area 401 Foot Elevation (Zone 11.5-0)

These areas were selected for inspection because they were identified as risk significant in the Byron Station Individual Plant Examination of External Events. The inspectors reviewed applicable portions of the Byron Station Fire Protection Report and assessed the licensee's control of transient combustibles and ignition sources, material condition, and operational status of fire barriers and fire protection equipment. During this inspection, the inspectors interviewed engineering department personnel and the station's fire marshal.

In addition, the inspectors assessed fire brigade performance and the drill evaluators' critique during a fire brigade drill conducted in the Byron Station auxiliary building on December 9, 2000. The drill simulated a fire in the Division 12 engineered safety features switchgear room. The inspectors focused on command and control of fire

brigade activities, fire fighting and communication practices, material condition and use of fire fighting equipment, and implementation of pre-fire plan strategies. The inspectors also reviewed the shift manager's emergency classification of the simulated event.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors observed the licensee perform inspections of the 1A safety injection (SI) pump lube oil (1ASI01A) and cubicle (1VA04SA) coolers. The inspectors selected these coolers to inspect because the safety injection system was identified as risk significant in the licensee's risk assessment and the coolers are required to support operability of the pump. During this inspection, the inspectors observed the as-found condition of the coolers and verified that no deficiencies existed that would mask degraded performance. In addition, the inspectors observed that no conditions were present that would indicate a potential for common cause problems. The inspectors discussed the as-found condition as well as the historical performance of these coolers with engineering department personnel and reviewed the documents listed below.

- Byron Technical Procedure 800-30, "Service Water System Fouling Monitoring Program," Revision 4
- Unit 1 Byron Technical Surveillance Requirement Procedure (BVSr) SX-8, "Unit 1 Heat Exchanger Test Procedure for Safety Injection Pump Room Cubicle Coolers (1VA04SA/B)," Revision 2
- Calculation NED-H-MSD-9, Table 4, "Effectiveness Curve Data for Cubicle Coolers 1/2VA04SA, Safety Injection Pump Rooms," Revision 1
- Engineering Report 0006190297, "Performance Test Report for Safety Injection Pump Room Cubicle Cooler 1VA04SA Heat Exchanger," May 5, 2000
- Engineering Request 9912737, "Evaluation of Performance Test Results for the Safety Injection Pump Room Cubicle Cooler 1VA04SA Heat Exchanger"
- Work Request (WR) 930019926, "Visual Inspection Report for Safety Injection Pump Room Cubicle Cooler 1VA04SA Heat Exchanger"
- WR 960056230, "Visual Inspection Report for Safety Injection Pump Room Cubicle Cooler 1VA04SA Heat Exchanger"
- WR 990176209, "1VA04SA Heat Exchanger Inspection Per GL [Generic Letter] 89-13, 1A Safety Injection Pump Cubical Cooler"
- WR 99018504, "1ASI01A Heat Exchanger Inspection Per GL 89-13, 1A Safety Injection Pump Oil Cooler"

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for heat sink performance issues documented in the following condition report.

- B2000-02836 SX Pipe and 1B AF [Auxiliary Feedwater] Cubicle Cooler Flange Connections Are Corroded

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors evaluated the licensee's implementation of the maintenance rule, 10 CFR Part 50.65, as it pertained to identified performance problems with the diesel generators (DGs), main steam safety valves (MSSVs) and the steam generator power operated relief valves (PORVs) that were documented in the following condition reports.

- B1998-01573 2MS013A MSSV Found Out Of Tolerance
- B1998-03968 1A DG Trip During Startup Causing Unintentional LCOAR [Limiting Condition for Operation Action Requirement] Entry
- B1999-00413 Unplanned LCOAR Entry On 1B DG
- B1999-03618 MS [Main Steam] Safety Valve (2MS016A) Found Outside Tolerance
- B1999-03628 Main Steam Safety Valve 2MS016D Lift Setpoint Outside Tolerance
- B1999-03631 Main Steam Safety Valve 2MS017D Found Outside Tolerance
- B1999-03640 Main Steam Safety Valve 2MS015B Found Outside Tolerance
- B1999-03641 Main Steam Safety Valve 2MS017B Found Outside Tolerance
- B1999-03643 Main Steam Safety Valve 2MS016C Found Outside Tolerance
- B2000-01575 2B DG Inoperable Due To JW [Jacket Water] Flange Leak
- B2000-01749 Unplanned LCOAR Entry Upon Failure Of 2MS018D
- B2000-02598 Unit 1 Main Steam Safety Valve 1MS016D Found Out Of Tolerance
- B2000-02817 Tubing For Hand Pump Of Steam Generator PORV(s) Misaligned
- B2000-03335 2A DG "B" Air Dryer Filter Split Wide Open At Base

During this inspection, the inspectors evaluated the licensee's monitoring and trending of performance data, verified that performance criteria were established commensurate with safety, and verified that the equipment failures were appropriately evaluated in accordance with the maintenance rule. The inspectors also interviewed the station's maintenance rule coordinator and reviewed Nuclear Station Procedure ER-3010, "Maintenance Rule," Revision 0.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the licensee's evaluation of plant risk for planned maintenance activities on the 1A safety injection train and on the 1B and 1D reactor containment fan coolers. The inspectors also reviewed the licensee's evaluation of plant risk for emergent work to flush the Unit 1 residual heat removal system and containment spray system piping. The inspectors selected these maintenance activities because they involved systems which were risk significant in the licensee's risk analysis.

During this inspection, the inspectors assessed the operability of redundant train equipment and verified that the licensee's planning of the maintenance activities minimized the length of time that the plant was subject to increased risk. The inspectors also interviewed operations and work control department personnel and reviewed Nuclear Station Procedure WC-AA-103, "On-Line Maintenance," Revision 0.

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

(Closed) Licensee Event Report (LER) 50-454-2000-003: "Unintentional Violation of Low Temperature Over Pressure Protection System Technical Specification Due to Operator Error." See Section 4OA7 of this report. This LER is closed.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors evaluated the licensee's basis that the issues identified in the following operability evaluation and plant review report did not render the involved equipment inoperable or result in an unrecognized increase in plant risk.

- Operability Evaluation 00-010, "2A and 2B SI [Safety Injection] Accumulator Sample Isolation Valves (2PS-9352A and 2PS-9352B) Leak By"
- Plant Review Report 00-072, "Debris In SI System Piping"

The inspectors also evaluated the licensee's basis that the inoperability of the Unit 1 and Unit 2 containment floor drain sump level post accident monitoring instruments, which were documented in the engineering evaluations listed below, did not result in an unanalyzed condition or compromise a required safety function for either unit.

- Engineering Evaluation for Inoperability of 1LI-PC003, Unit 1 Containment Floor Drain Sump Level Post Accident Monitoring Instrument; November 21, 2000
- Engineering Evaluation for Inoperability of 2LI-PC003, Unit 2 Containment Floor Drain Sump Level Post Accident Monitoring Instrument; December 22, 1999

The inspectors interviewed engineering department personnel and reviewed Nuclear Station Procedure CC-3001, "Operability Determination Process," Revision 0, and the applicable portions of the Updated Final Safety Analysis Report, Technical Specifications, and Technical Requirements Manual.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports.

- B1999-04420 Unplanned LCOAR Entry for 2LI-PC003 - Indicator Slow to Respond
- B2000-03361 Degraded Response of 1LI-PC003
- B2000-02760 FME [Foreign Material Exclusion] Concern

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

The inspectors evaluated the operator work-around (OWA) listed below to identify any potential affect on the functionality of mitigating systems or on the operators' response to initiating events.

- OWA 241 Unit 1 "D" Safety Injection (SI) Accumulator Check Valve (1SI8818D) Leakage

The inspectors selected OWA 241 because the leaking check valve causes the 1D SI accumulator to lose level and pressure and the residual heat removal (RH) system piping to slowly pressurize. The SI accumulators are maintained pressurized with nitrogen between 602 and 647 pounds per square inch gage (psig). The RH system is a low pressure system and each inlet line to the system has a relief valve set to relieve pressure at 450 psig. Operators must refill and re-pressurize the accumulator every other day as well as vent the RH system piping daily to prevent challenging the system's relief valves.

The inspectors interviewed operating and engineering department personnel and reviewed Nuclear Station Procedure OP-AA-101-303, "Operator Work-Around Program," Revision 0. The inspectors also reviewed the documents listed below.

- Condition Report B2000-02825, “Re-Perform Work Instructions on 1SI8818D”
- Condition Report B2000-03117, “RH Pump Discharge Pressure Increase in Standby Condition”
- Condition Report B2000-03122, “1SI8818D Leakage”
- Apparent Cause Evaluation 00036144, “Re-Perform Work Instructions on 1SI8818D”
- Apparent Cause Evaluation 00036747, “1SI8818D Leakage”
- Work Request 99105910-01, “Loop 4 Cold Leg Accumulator Injection Check Valve - Suspect Check Valve Leak-By, Please Repair”

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors evaluated the licensee’s post maintenance testing activities for maintenance conducted on the 0B essential service water makeup train, the 2B safety injection train, and the 1B and 1D reactor containment fan coolers. These activities included the following work requests.

- WR 980088041-01 2SI8920 2B SI Pump Mini Flow PM [Preventive Maintenance] and MOV [Motor Operated Valve] 1 on Limitorque
- WR 980088774-01 2SI8821B 2B SI Pump To Cold Leg PM and MOV-1 on Limitorque
- WR 980135280-01 Replace the 0B SX Makeup Pump Battery #2
- WR 990035402-01 Replace Time Delay Relay 1AP12E-1-RCFL4
- WR 990035403-01 Replace Time Delay Relay 1AP12E-1-RCFL2
- WR 990035404P-02 ESFAS [Engineered Safety Feature Actuation System] Instrumentation Slave Relay Surveillance
- WR 990092645-01 Time Delay Relay Calibration - Relay 1AP12E-1-RCFL2
- WR 990092984-01 Time Delay Relay Calibration - Relay 1AP12E-1-RCFL4
- WR 990118855-01 Perform 1/2BHSR 8.b-1, “Motor Operated Valve Thermal Overload Protection Surveillance,” on 0SX157B
- WR 990126370-01 Replace Time Delay Relay K2
- WR 990126371-01 Replace Time Delay Relay K3
- WR 990130327-01 Replace Governor Dump Solenoid Valve
- WR 990134183-01 Install Spare Right Angle Gear Drive on the 0B SX Makeup Pump
- WR 990165961-01 Install SSCR [Setpoint/Scaling Change Request] 00-024
- WR 990167745-01 Install SSCR 00-025
- WR 990212037-01 Limitorque Valve Operational Diagnostic Test
- WR 990213016-01 ESFAS Instrumentation Slave Relay Surveillance

The inspectors selected these post maintenance activities because they involved systems which were risk significant in the licensee's risk analysis.

The inspectors reviewed the scope of the work performed and evaluated the adequacy of the specified post maintenance testing. The inspectors verified that the post maintenance tests were performed in accordance with approved procedures, that the procedures clearly stated acceptance criteria, and that the acceptance criteria were met. During these inspection activities, the inspectors interviewed operations, maintenance, and engineering department personnel and reviewed the completed post maintenance testing documentation.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports.

- B2000-01270 Potential Trend for Failed PMTs [Post Maintenance Tests]
Potential Rework Issues
- B2000-01531 Problems with NSP [Nuclear Station Procedure]
WC-AA-105
- B2000-01777 OSA01C
- B2000-02423 1SA147B Failed PMT
- B2000-03031 Equipment Does Not Respond as Expected During Mod
Test SPP [Special Plant Procedure] 00-012

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors evaluated the surveillance testing activities listed below to verify that the testing demonstrated that the equipment was capable of performing its intended function.

- 1BVSR 5.2.4-4, "Unit 1 ASME [American Society of Mechanical Engineers] Surveillance Requirements for Residual Heat Removal Pump 1RH01PB," Revision 3
- 2BOSR FW-SA1, "Unit Two Anticipated Transient Without Scram Mitigation System (AMS) at Power Semiannual Surveillance," Revision 2
- 2BVSR 5.2.4-6, "Unit 2 Train B ASME Surveillance Requirements for Centrifugal Charging Pump 2B and Chemical and Volume Control System Valve Stroke Test," Revision 3

The inspectors selected these surveillance test activities because the system functions were identified as risk significant in the licensee's risk assessment and the components were credited as operable in the licensee's safety analysis to mitigate the consequences of a potential accident. The inspectors interviewed operations and engineering department personnel, reviewed the completed test documentation and applicable portions of the Updated Final Safety Analysis Report and the Technical Specifications, and observed the performance of all or portions of these surveillance testing activities.

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports.

- B1999-03484 Fire Damper Surveillance Testing
- B2000-02315 Failure to Correct a Previously Identified SSPS [Solid State Protection System] Test Switch Failure

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the temporary modifications listed below to verify that the installations were consistent with design modification documents and that the modifications did not adversely impact system operability or availability.

- DCP 9900605 Disable Switches for Three 50,000/125,000 Gallon Fuel Oil Storage Tank Fire Protection Deluge Isolation Valves
- DCP 9900778 Replace Spare 70 Amp Breaker With 40 Amp Breaker to Provide Temporary Feed to 2PM11J From Bus 212

The first temporary modification disabled the supervisory and tamper switches for three isolation valves associated with the 50,000 gallon and 125,000 gallon fuel oil storage tank fire protection deluge system to remove a nuisance alarm in the main control room. The modification was designed to be in place as long as the three valves remained out-of-service for isolation of the deluge system. The second modification installed a 40 ampere circuit breaker into a spare breaker cubicle to provide temporary power to a control room cabinet. The normal power supply breaker had demonstrated degradation through intermittent loss of electrical contact because of a misaligned line-side contact screw.

The inspectors verified that configuration control of the modifications were correct by comparing the field installations with design modification documents and confirmed that appropriate post-installation testing was accomplished. The inspectors reviewed the design modification documents and associated 10 CFR 50.59 evaluations against the applicable portions of the Updated Final Safety Analysis Report. The inspectors also interviewed engineering department personnel and reviewed Nuclear Station Procedure CC-AA-112, "Temporary Modifications," Revision 2.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors verified the Reactor Coolant System Leakage performance indicator for both units. The inspectors reviewed the results of each reactor coolant system water inventory balance from October 1999 through September 2000, determined the maximum monthly value of identified leakage for each unit, and verified the licensee's calculation of the performance indicator values.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

Exit Meeting Summary

The inspectors presented the inspection results to Mr. R. Lopriore and other members of licensee management at the conclusion of the inspection on December 28, 2000. The licensee acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

40A7 Licensee Identified Violations. The following finding of very low safety significance was identified by the licensee and is a violation of NRC requirements which meets the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as a Non-Cited Violation (NCV).

NCV Tracking Number

Requirement Licensee Failed to Meet

NCV 50-254-00-19-01

Technical Specification 3.4.12 requires, in part, that a low temperature over pressure protection system be operable with no safety injection pumps capable of injecting into the reactor coolant system while in Operational Modes 4 and 5. On October 8 and 9, 2000, for approximately 4 hours, the 1A safety injection pump was capable of injecting into the reactor coolant system while Unit 1 was in Operational Mode 5. The licensee entered this occurrence into its corrective action program as Condition Report B2000-03043.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. Adams, System Engineering Manager
S. Gackstetter, Shift Operations Superintendent
W. Grundmann, Executive Assistant
D. Hoots, Operations Manager
S. Kuczynski, Maintenance Manager
W. Levis, Site Vice President
H. Long, Electrical Maintenance Superintendent
R. Lopriore, Station Manager
K. Moser, Nuclear Oversight
P. Reister, Regulatory Assurance Manager
R. Roton, Regulatory Assurance
G. Stauffer, Regulatory Assurance

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-254-00-19-01	NCV	Failure to maintain low temperature over pressure protection system Technical Specification requirements due to human performance errors
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Closed

50-254-00-003-00	LER	Unintentional violation of low temperature over pressure protection system technical specification due to operator error
50-254-00-19-01	NCV	Failure to maintain low temperature over pressure protection system Technical Specification requirements due to human performance errors

Discussed

None

LIST OF BASELINE INSPECTIONS PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

Inspection Procedure		
<u>Number</u>	<u>Title</u>	<u>Report Section</u>
71111-01	Adverse Weather Protection	1R01
71111-04	Equipment Alignment	1R04
71111-05	Fire Protection	1R05
71111-07	Heat Sink Performance	1R07
71111-12	Maintenance Rule Implementation	1R12
71111-13	Maintenance Risk Assessments and Emergent Work Control	1R13
71111-14	Personnel Performance During Non-routine Plant Evolutions and Events	1R14
71111-15	Operability Evaluations	1R15
71111-16	Operator Workarounds	1R16
71111-19	Post Maintenance Testing	1R19
71111-22	Surveillance Testing	1R22
71111-23	Temporary Plant Modifications	1R23
71151	Performance Indicator Verification	4OA1
(none)	Meetings, including Exit	4OA6
(none)	Licensee Identified Violations	4OA7

LIST OF ACRONYMS USED

ACB	Air Circuit Breaker
AF	Auxiliary Feedwater
ASME	American Society of Mechanical Engineers
BOP	Byron Operating Procedure
BOSR	Byron Operating Surveillance Requirement Procedure
BVSR	Byron Technical Surveillance Requirement Procedure
CFR	Code of Federal Regulations
DCP	Design Change Package
DG	Diesel Generator
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
ESFAS	Engineered Safety Feature Actuation System
FME	Foreign Material Exclusion
GL	Generic Letter
JW	Jacket Water
KV	Kilovolt
LCOAR	Limiting Condition for Operation Action Requirement
LER	Licensee Event Report
MOV	Motor Operated Valve
MS	Main Steam
MSSV	Main Steam Safety Valve
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NSP	Nuclear Station Procedure
OWA	Operator Work-Around
PARS	Publically Available Records
PM	Preventive Maintenance
PMT	Post Maintenance Testing
PORV	Power Operated Relief Valve
RH	Residual Heat Removal
SI	Safety Injection
SPP	Special Plant Procedure
SSCR	Setpoint/Scaling Change Request
SSPS	Solid State Protection System
SX	Essential Service Water
WR	Work Request