January 12, 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 - NRC INSPECTION REPORT 50-454-00-20(DRP); 50-455-00-20(DRP)

Dear Mr. Kingsley:

On December 15, 2000, the NRC completed a baseline problem identification and resolution inspection at the Byron Generating Station. The inspection results were discussed with Mr. William Levis, Site Vice President, and other members of your staff. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems and compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observation of activities, and interviews with personnel.

Based on the results of the inspection, we concluded that your program effectively identified and resolved conditions adverse to quality in that the inspectors did not identify any issues that resulted in the operability of safety-related or risk significant plant equipment being questioned. Also, we concluded that your personnel communicated an acceptable level of responsibility in identifying and entering safety issues into the corrective action program. There were no findings developed as a result of the inspection.

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 <u>or</u> from the *Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from* the NRC Web site at <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room). We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original signed by Michael J. Jordan, Chief

Michael J. Jordan, Chief Reactor Projects Branch 3

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

- Enclosure: Inspection Report 50-454-00-20(DRP); 50-455-00-20(DRP)
- cc w/encl: D. Helwig, Senior Vice President, Nuclear Services C. Crane, Senior Vice President, Nuclear Operations H. Stanley, Vice President, Nuclear Operations R. Krich, Vice President, Regulatory Services DCD - Licensing W. Levis, Site Vice President R. Lopriore, Station Manager P. Reister, Regulatory Assurance Supervisor M. Aguilar, Assistant Attorney General State Liaison Officer State Liaison Officer, State of Wisconsin Chairman, Illinois Commerce Commission

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O. Kingsley

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# U. S. NUCLEAR REGULATORY COMMISSION

# **REGION III**

Docket Nos: License Nos:	50-454; 50-455 NPF-37; NPF-66
Report No:	50-454-00-20(DRP); 50-455-00-20(DRP)
Licensee:	Commonwealth Edison Company
Facility:	Byron Generating Station, Units 1 and 2
Location:	4450 N. German Church Road Byron, IL 61010
Dates:	December 4 through December 15, 2000
Inspectors:	<ul><li>T. M. Tongue, Projects Engineer, Team Leader</li><li>K. G. O'Brien, Reactor Engineer</li><li>B. J. Kemker, Resident Inspector, Byron Station</li></ul>
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**

#### Radiation Safety

# Safeguards

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

Inspection Report 50-454-00-20(DRP); 50-455-00-20(DRP); on 12/04 - 12/15/00; Commonwealth Edison Company; Byron Generating Station, Units 1 and 2; Annual baseline inspection of the Identification and Resolution of Problems.

This announced 2-week inspection was conducted by two region-based inspectors and one resident inspector. The purpose of the inspection was to review the effectiveness of the corrective action program which included the methods used for identification, cause investigation, and correction of quality-related problems.

## **Problem Identification and Resolution**

The inspectors determined the licensee staff were effective in identifying and resolving problems in accordance with the corrective action program. Also, the inspectors concluded that the licensee staff communicated an acceptable level of responsibility for identifying and entering safety issues into the corrective action program. However, the inspectors also identified several examples of minor problems that did not result in any adverse consequences and which were similar to problems identified by licensee staff during recent self-assessments.

The inspectors identified some evaluations of condition reports that were not rigorously performed or were narrowly focused. As a result, the developed corrective actions were not always appropriate to the circumstances or were not totally effective. The inspectors also determined the licensee staff did not always develop condition reports to document and track the resolution of problems identified during effectiveness reviews of corrective actions for past condition reports.

# **Report Details**

# 4. OTHER ACTIVITIES (OA)

## 4OA2 Problem Identification and Resolution

- 1. Effectiveness of Problem Identification
- a. Inspection Scope

The inspectors reviewed previous licensee and inspector identified issues related to the seven safety cornerstones in the Reactor Safety, Radiation Safety, and Safeguards strategic performance areas to determine if problems were appropriately identified, characterized, and entered into the corrective action program. The inspectors also reviewed operability evaluations, audits, and self-assessments completed since January 2000. The inspectors paid particular attention to issues associated with three risk significant plant systems; the residual heat removal, the auxiliary feedwater, and the instrumentation and control power systems. These system inspections included a review of completed corrective maintenance activities, work order backlogs, related condition reports, and system drawings. A listing of the specific documents reviewed during the inspection is attached to this report.

#### b. Issues and Findings

There were no findings identified in this area. In general, the inspectors determined that the licensee was effective in identifying and appropriately characterizing problems.

Through interviews, the inspectors identified a minor weakness regarding a lack of feedback, in some cases, to the originators of condition reports. The inspectors concluded that the lack of feedback was due, in part, to some individuals limited accessability or familiarity with computers.

#### 2. Prioritization and Evaluation of Issues

#### a. <u>Inspection Scope</u>

The inspectors reviewed condition reports, audits, and self-assessments and observed meetings of the Condition Review Group and Management Review Committee to verify that identified issues were appropriately characterized, an appropriate analysis of the cause of the problem was performed for significant conditions adverse to quality, and the risk associated with combinations of issues was appropriately considered. In addition, the inspectors reviewed the licensee staff's efforts to capture industry operating experience (OPEX) issues in the corrective actions program. Documents reviewed included operating event reports, NRC, and vendor generic notices. The inspectors reviewed information recorded since January 2000. A listing of the specific documents reviewed is attached to the report.

#### b. Issues and Findings

There were no findings identified in this area. However, the inspectors identified some minor safety-significant examples of condition reports evaluations that were not rigorously performed or were narrowly focused. Therefore, in some cases corrective actions were not appropriate to the circumstances or were not totally effective. A couple of noteworthy examples are discussed below.

- Condition Report B2000-02722, "Draining of Unit 1 Pressurizer Level Instrument (1LT-0461) Causes Erratic Reactor Vessel Level Indication." An instrument maintenance mechanic inadvertently caused the loss of reactor vessel level indicator 1LI-RY049 while performing a calibration on 1LT-0461, which shares a common sensing line with 1LI-RY049. The instrument maintenance mechanic was not following his procedure when he drained water from the high side test tap. The apparent cause evaluation did not correctly identify that the instrument maintenance mechanic was not working within the bounds of the calibration procedure. The evaluation attributed the cause to poor verification practices.
- Condition Report B2000-1300, "Required 50.59 Review Not Performed For T&D [Transmission and Distribution] Procedures Used in Switchyard by Substation." The evaluation determined the apparent cause was weak communication practices. The inspectors determined, based upon a further review of the condition report information, that the issues were more likely caused by a failure to follow procedures and potential inadequacies in the electronic work control process. Subsequently, station management decided to conduct a more rigorous review of the issues to ensure that the involved procedural, process, and human performance concerns were identified.

The inspectors also identified some minor safety-significance examples of condition report supervisory reviews that did not correctly assess all of the issues raised by the condition report originators. Therefore, in some cases corrective actions were not appropriate to address the issues or were not totally effective. Several noteworthy examples are discussed below.

- Condition Report B2000-01095, "Accident Reports Are Being Used For Discipline." The supervisor review emphasized the importance of a safe work environment but disregarded the originator's concern that filling out accident reports could lead to disciplinary action.
- Condition Report B2000-01271, "T-Mod [Temporary Modification] Work Around." The condition report originator raised issues regarding the control of a temporary modification using a procedure and subsequent unevaluated changes to the procedure. The inspectors noted that the supervisory review focused on justifying conducting the activity using the procedure. A subsequent supervisory review of the condition report originator's issues determined changes were necessary to the processes used to control procedurally-implemented temporary modifications.

 Condition Report B2000-01501, "Improper Use of the 50.59 and Out of Service Processes." The condition report originator identified that a process weakness which could allow equipment to be removed from service, and a modification to be made to the plant, without the benefit of a formal safety evaluation, until almost one year after the modification was implemented. The initial condition report supervisory review failed to ensure that the process weakness was highlighted and assessed. As a result, station management did not assess the need to make changes to the process for performing safety evaluations for equipment removed from service. The inspectors reviewed the current list of out of service equipment with licensee staff and did not identify any long term out of service equipment for which a safety evaluation had not been performed.

#### 3. <u>Effectiveness of Corrective Actions</u>

#### a. Inspection Scope

The inspectors reviewed condition reports, operability determinations, root cause reports, and action requests to verify that corrective actions, commensurate with the issues, were identified and implemented in a timely manner, including corrective actions to address common cause or generic concerns. The inspectors reviewed information recorded since January 2000. A listing of the specific documents reviewed is attached to the report.

#### b. Issues and Findings

There were no findings identified in this area.

The inspectors noted that licensee effectiveness reviews of corrective actions, developed to prevent the recurrence of significant conditions adverse to quality, had determined that the corrective actions were not fully effective. The inspectors also noted that, in some cases, the effectiveness reviews did not include follow-up actions to address the ineffective corrective actions, and condition reports were not written to document the ineffective corrective actions. The licensee wrote Condition Reports B2000-03836 and B2000-03911 to enter these issues and other inspector-identified minor administrative deficiencies with the effectiveness reviews into the corrective action program.

The inspectors also identified some examples of corrective actions, once proposed, were not reevaluated or revisited to ensure the corrective actions were implemented or that the conditions documented in the condition reports were resolved. In one instance, Condition Report B2000-01340, "Outage Work Attached to Online OOS," a corrective action was proposed which required the licensee's corporate staff to implement a change to an electronic work control process used by each of the stations. The licensee's corporate staff declined to implement the proposed change; however, the issue was not reevaluated to determine what additional or different corrective actions were required. In another instance, Condition Report B2000-01300, "Required 50.59 Review Not Performed for T&D [Transmission and Distribution] Procedures Used in Switchyard by Substation Crews," a corrective action was proposed which required the licensee's conducted by system-wide staff

which conflicted with NRC regulations and other station policies and procedures. The licensee's corporate staff decided not to implement the corrective action as proposed. Instead, the licensee's corporate staff were developing a modified corrective action; however, the station staff were unaware of the changed corrective action. In this instance, the licensee's corporate staff did not inform the station staff of the proper requirements and the change to the original proposed corrective actions. In response to each of these findings, the station staff initiated condition reports to both correct the missed or incorrect corrective actions and to assess the cause for each of the conditions. The inspectors did not identify any safety issues caused by the ineffective corrective actions. The inspectors considered these deficiencies minor and administrative in nature.

#### 4. Effectiveness of Licensee Audits and Assessments

#### a. Inspection Scope

The inspectors reviewed selected licensee audits and self-assessments performed since January 2000. The review was conducted to determine whether the audit and self-assessment programs were effectively managed, adequately covered the subject areas, and to determine whether the associated findings were appropriately captured in condition reports. In addition, the inspectors interviewed licensee staff regarding the audit and self-assessment programs. A listing of the specific documents reviewed is attached to the report.

#### b. Issues and Findings

There were no findings identified this area.

The inspectors identified some findings, developed as a result of the monthly Focused Area Self Assessments and Nuclear Oversight Assessment, had not been entered into the corrective action program. Specifically, issues identified as deficiencies, areas recommended for improvement, and informal trends at the functional levels (maintenance and engineering periodic reviews) were not further assessed by the corrective action program. The inspectors also identified that the licensee previously had developed a similar finding following an internal audit of their self assessment activities. As corrective action to the finding, the licensee management had initiated increased management reviews of the self assessment processes to ensure appropriate issues were included in the corrective action program. Subsequently, the licensee staff entered the inspector-identified issues into the corrective action program and assessed the immediate safety significance of the findings. As of the end of the inspection, the licensee staff were continuing to implement the increased management reviews to ensure that findings were appropriately entered into the corrective action program.

## 5. Assessment of Safety Conscious Work Environment

## a. Inspection Scope

The inspectors interviewed about 30 staff members, representing most work groups and organization levels, regarding the licensee corrective action program, including the

employees concerns program. The inspectors utilized the questions included in Appendix 1 to NRC Inspection Procedure 71152, "Suggested Questions For Use In Discussions With Licensee Individuals Concerning PI&R Issues," as a framework for the interviews and to assess whether conditions existed that would challenge the establishment of a safety conscious work environment.

#### b. Issues and Findings

There were no findings identified this area.

The inspectors concluded, based on information collected from interviews with about 30 licensee staff, that licensee staff generally communicated a level of responsibility to proactively identify and enter safety issues into the corrective action program.

The inspectors determined that the issues brought to the employee concerns program (ECP) administrator were appropriately dispositioned. However, in some cases, the inspectors could not identify documentation in the ECP files which demonstrated that specific corrective actions had been implemented. The inspectors also determined that several interviewees lacked general information about the ECP such as who the ECP administrator was, who the administrator reported to, and how to enter a concern into the program. However, the interviewees were aware of how to find the ECP phone number and how to contact the NRC.

The inspectors noted that some licensee staff may have misunderstood station policies regarding open communications, especially with NRC staff. Specifically, some licensee staff believed that station policies and procedures required the staff to complete "contact forms" following communications with any NRC staff. Some licensee staff further indicated their belief that the completed forms were required to ensure licensee management was kept informed of commitments to and concerns expressed by the NRC staff. However, the licensee staff were not sure of how the commitment to complete the form comported with the NRC's requirement for unfettered access by licensee staff to the NRC staff. None of the licensee staff interviewed expressed a concern with their ability to raise issues freely with the NRC staff.

The inspectors reviewed current station policies and procedures and discussed the above observation with licensee management. The inspectors found that no formal policy or procedures existed regarding the "contact form" and communications with the NRC or others. However, some station policies and procedures still referred to the contact form. In addition, several licensee management letters existed which referenced the concept of a contact form.

While, the inspectors did not identify any station policies, procedures, or management letters which were in conflict with NRC regulations, the inspectors noted that a potential barrier to open communications existed. Specifically, the previous existence of a policy regarding use of the contact form combined with a current lack of policies or procedures on the subject contributed to some license staff feeling uneasy about the contact form and having an open dialogue with NRC staff. Station management acknowledged the inspectors findings and their need to ensure the absence of all barriers to an open

dialogue for raising safety issues. The licensee staff is reviewing this issue to assess corrective actions.

#### 4OA6 Management Meetings

## Exit Meeting Summary

The inspectors presented the results to Mr. William Levis, Site Vice President, and other members of the licensee management at the conclusion of the inspection on December 15, 2000. The licensee acknowledged the findings presented.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. Proprietary information was provided and examined during the inspection, and was returned to the licensee.

# PARTIAL LIST OF PERSONS CONTACTED

## <u>Licensee</u>

- W. Levis, Site Vice President
- J. Benjamin, Vice President, Licensing
- R. Lopriore, Byron Station Manager
- D. Hoots, Operations Manager
- J. Kramer, Work Control Manager
- B. Adams, System Engineering Manager
- T. Roberts, Design Engineering Manager
- T. Schuster, Chemistry Manager
- D. Spoerry, Training Manager
- R. Deppi, Nuclear Oversight Manager
- P. Reister, Regulatory Assurance Manager
- W. Jacobs, Instrument Maintenance Superintendent
- D. McDermott, On-Line Work Control Superintendent
- B. Sambito, Radiation Protection FLS
- W. Grundmann, Executive Assistant to the Station Manager
- R. Irby, Corrective Action Program Administrator
- M. Ryterski, Regulatory Assurance
- R. Roton, Regulatory Assurance
- B. Quigley, Operations Projects Group Lead
- D. Karajala, Regulatory Services, Downers Grove

# <u>NRC</u>

G. Grant, Director, Division of Reactor Projects, Region III

# IDNS

C. Thompson, Resident Engineer

# LIST OF DOCUMENTS REVIEWED

## **Procedures**

## Number

## Title

- Corrective Action Program (CAP) Process Procedure, Revision 3 AD-AA-106 CAP-3
- Root Cause Investigation and Report Handbook, Revision 4 CAP-4
- Common Cause Analysis Handbook, Revision 1 CAP-5 Effectiveness Review Handbook, Revision 1
- CAP-6
- Coding and Trending Handbook, Revision 3
- PassPort Action Tracking Record Retention Handbook, Revision 3 CAP-7
- Apparent Cause Evaluation (ACE) Handbook, Revision 2 CAP-8 CAP-9 CAPSYS Process Instructions Handbook, Revision 1
- **CAP-10** Corrective Action Program (CAP) Guidance and Expectations
- Handbook, Revision 2
- CC-AA-112 Temporary Modifications, Revision 2
- EI-AA-1 **Employee Issues**, Revision 0
- EC-AA-101 Employee Concerns Program, Revision 0 •
- Employee Concerns Program, Revision 0 EI-AA-101
- ER-AA-321 Administrative Requirements for Inservice Testing, Revision 2
- MA-AA-AD-6-00010 Preparation of Maintenance Work Packages, Revision 1
- MA-AA-AD-6-03009 Work Execution and Closeout, Revision 3
- NEP-04-01 Plant Modifications, Revision 6
- RS-AA-104 10 CFR 50.59 Safety Evaluation Process, Revision 0
- RS-AA-115 Operating Experience (OPEX), Revision 2
- TQ-AA-117 Engineering Support Personnel, Revision 2 •
- WC-AA-103 On-line Maintenance, Revision 2
- WC-AA-8002 Interface Agreement Between Substation Craft and Exelon Nuclear, Revision 0a

# **Condition Reports (CR)**

# Number

Title

- B1999-04599 Mis-Positioned Fuel Assembly During Re-Rack Moves ٠
- B1999-04645 Inadvertent Oil Transfer From 125,000 Gallon Tank to 50,000 Gallon Tank
- B2000-00069 Electrical Print Missing Information
- B2000-00138 Voltage Drop for 2A and 2B RH Pump Switchgear Breaker Closing Coils
- B2000-00139 Mod [Modification] Closeout Activities Not Adequately Tracked
- B2000-00192 Broken Wire Lug
- B2000-00233 Nuclear Oversight Identified Deficiency on 50.59 •
- B2000-00284 Nuclear Oversight Review of Corrective Actions
- B2000-00329 Adverse Industrial Injury Trend
- B2000-00377 Degraded Equipment, Configuration Control Concerns and Failure to Implement NSP-WC-3010, Causing Loss of Auxiliary Power
- B2000-00390 2PT-0615 Out of Tolerance, Expanded Tolerance Exceeded
- B2000-00362 NON [Notice of Non-conformance] LS-00-005 [XX] 1A DG Failure to Start

Removal] Inoperable B2000-00473 QC [Quality Control] Hold Tag Not Placed on Valve . B2000-00525 Failure to Generate Safety Evaluation Summaries • B2000-00578 Replacement of Solid State Protection System Switch B2000-00579 NRC Maintenance Rule Monitoring Data Request and Review Concern B2000-00589 QRT [Quality Review Team] Identified Minor Problem with 50.59 • B2000-00802 Nuclear Oversight Finding on System Engineering Trending/Performance Monitoring B2000-00803 Nuclear Oversight Finding on System Engineering Long Term Performance Plans B2000-00804 Nuclear Oversight Finding on System Engineering Use of Project View Scheduling B2000-00863 Isolation Valve Found Closed B2000-00932 American Society of Mechanical Engineers Code Modification Review B2000-00985 U2 NRC IE88-08 Temperature Monitoring Data Meets Evaluation Criteria B2000-01010 New PMT [Post Maintenance Testing] Process is Not Understood by Key Players and Greatly Delays Work B2000-01021 Missing Pages From Temporary Modification 99-1-028 B2000-01027 Breaker Mis-Positioned During 2BOSR [Byron Operating Surveillance Requirement Procedure] 3.1.5-1 B2000-01079 Wrong Valves Closed During Fire Protection Testing B2000-01082 Valve 1RH606 Found To Have Bolts Missing B2000-01083 Apparent Inadequate Implementation Causes Concerns With Safety • B2000-01095 Accident Reports Are Being Used For Discipline B2000-01099 Confusing Isolation Location For Essential Service Water Makeup Pump B2000-01161 WC-AA-105 Procedure Non-Compliance B2000-01200 Few PIFs [Problem Identification Forms] Written By Training Department B2000-01210 Nuclear Operations Notification QC-00-043, Vendor Supplied Part . **Problems at Quad Cities** B2000-01232 Wrong Use of 10CFR50.59 Tracking Numbers • B2000-01256 Simulator Individual Failure and Ineffective Corrective Actions • B2000-01271 Temporary Modification Work Around B2000-01292 Information Stamped Safeguards Found In Sargent and Lundy Files • Located In The Site Engineering Library B2000-01300 Required 50.59 Review Not Performed For Transmission and Distribution . Procedures Used In Switchyard By Substation Crews B2000-01308 1SX150A Stuck On Closed Seat B2000-01318 Red Indicator for Corrective Action Plan Identification Priority 3 B2000-01319 Red Indicator for Corrective Action Plan Timeliness Priority 1 and 2 B2000-01340 Outage Work Attached To Online Out Of Service • B2000-01388 Operating Experience About Feedwater Heater Erosion • B2000-01417 PCE [Personal Contamination Event] #00-020 B2000-01418 Residual Heat Removal Piping Discovered Bent B2000-01428 2i/y 0619 Out Of Tolerance, Expanded Tolerance Exceeded B2000-01430 Deficiencies And Areas For Improvement Noted During Nuclear • **Oversight Assessment** B2000-01439 U-2 SAT B Phase Disconnect Failure And Associated Trip B2000-01447 Chemistry Improvement Opportunities 12

B2000-00436 ANO [Arkansas Nuclear One] Event - Both Trains of RHR [Residual Heat

B2000-01466 Procedure BHP 4200-46 Requires Revision for Residual Heat Removal Pump Switches B2000-01476 Inadequate Guidance For Plant Operations Review Committee Review of 10CFR50.59 Evaluations B2000-01479 10CFR50.59 Annual Summary Report Preparation B2000-01486 Fundamental Radiation Worker Practices B2000-01500 Radiation Protection Fundamental Work Practices • B2000-01501 Improper Use Of The 50.59 and Out of Service Processes B2000-01508 50.59 Qualification Material Lack of Evidence of Approval Before Use B2000-01509 Unacceptable Fundamental Issues B2000-01510 50.59 Qualification 2 Year Refresh Requirements B2000-01579 Online Work Control Apparent Cause Evaluation Did Not Address **Evaluation Screening Committee Comments** B2000-01583 Problem with Scope of NRC Information Notice Review B2000-01603 Maintenance Standards/Fundamentals Are Not Internalized at First Line Supervisor and Worker Levels B2000-01639 Evaluate PIF B2000-01340 for Station/Department Event Free Clock Reset B2000-01654 Nuclear Generation Group Standards and Online Risk B2000-01699 Engineering Failure to Notify Operating of Design Change Process Changes Affecting Procedures B2000-01707 Inadequate Application and Documentation of Root Cause Analytical Techniques B2000-01709 Inadequate Correction of a Condition Adverse To Quality and Failure to Identify and Investigate the Cause B2000-01752 Incomplete Action by the Problem Identification Form Screening Committee B2000-01753 Inadequate Corrective Action Review Board Review of Extent of Condition B2000-01763 Verbal Altercation Between Personnel B2000-01769 Calculation Error B2000-01781 Maintenance Rule Monitoring Concerns with Vent (VA) Supply to Motor **Driven Auxiliary Feedwater Pumps** B2000-01795 Trend on Ineffective Corrective Actions B2000-01797 Effectiveness Reviews Closed Out In Action Tracking Without Reference B2000-01805 Technical Specification Violation • B2000-01815 Maintenance Procedure Adherence Common Cause Analysis B2000-01823 NON [Nuclear Operations Notification] BW-00-032, Failure of Transformer in Inverter 214 Due to Inadequate Preventive Maintenance B2000-01825 Nuclear Oversight Identified An inadequate Root Cause And Effectiveness Review B2000-01841 Deficient Communications/Information Creates Conflicts During Containment Spray Work Window B2000-01850 Unsatisfactory Root Cause Report B2000-01851 Elevated Temperatures on Unit 2 Main Power Transformer Disconnect B2000-01856 Loss and Restoration of Direct Current Power to 2PM11J for Unknown Reasons B2000-01862 Loss Of Coolant Accident Dose Analyses Use Non-Conservative Post-Loss of Coolant Accident Recirculation Time B2000-01889 Unit 1 Residual Heat Removal Modification Dose Estimation

- B2000-01898 Generating Station Emergency Procedures Environmental Radio Problem
- B2000-01952 Corrective Action Plan Deficiencies Not Recognized In Aggregate
- B2000-01935 Maintenance Work Management Procedure Adherence Assessment Results
- B2000-01978 Lost Original 50.59
- B2000-01994 Inverter 212 Drawing Direct Current Amperes
- B2000-01999 Ineffective Corrective Actions
- B2000-02006 Unsatisfactory Root Cause Report
- B2000-02031 Decrease in the Condition Reporting in Operations and Maintenance
- B2000-02033 Inverter 212 AC [Alternating Current] Input Breaker Trip During Inverter Restoration
- B2000-02037 Untimely Handling of Significant Condition Report
- B2000-02039 Corrective Actions Not Documented Or Don't Exist
- B2000-02041 Corrective Actions Did Not Occur, Missing AT [Action Tracking] Items
- B2000-02066 Nuclear Operations Notice BW-00-035, Loss of 34kV Line to River Screen House Due To Mobile Crane Contact
- B2000-02077 Ineffective Operating Experience Review of Plant Vogtle 1B CV Pump Rebuild
- B2000-02083 Contractor Egressed the Fuel Handling Building Radiation Protection
   Area Unsurveyed
- B2000-02101 Unit 2 Reactor Trip Due to 2C Feedwater Regulating Valve Failure
- B2000-02118 Focus Self-Assessment Procedure Violation
- B2000-02124 Notice of Violation-Fire Extinguisher/Fire Hose Inspections Not Done
- B2000-02151 Unavailability Event Not Captured for Nuclear Energy Institute Indicator for Residual Heat Removal For May 2000, And Associated Apparent Cause Evaluation
- B2000-02173 Common Cause Analysis Results On Root Cause Reports
- B2000-02183 2AR11J/2AR12J Radiation Readings Approaching Alert Setpoints
- B2000-02187 Recommended Change To Nuclear Station Procedure AD-AA-106
   (Corrective Action Program) for Common Cause Analyses
- B2000-02199 Request for Review of Program Implementation Problem By All Major
   Departments
- B2000-02218 Results Of Common Cause Analysis of Corrective Action Program Condition Reports
- B2000-02223 Remote Operator On Valve 2RH004D Failed To Completely Close The Valve
- B2000-02225 1RE-PR008 Cross-connected With 2RE-PR008 Previously Identified Concern
- B2000-02230 NRC 88-08 Temperature Monitoring Data Requires Evaluation
- B2000-02245 OWA [Operator Work-Around] Program
- B2000-02248 Nuclear Oversight Results of Trend Identified In Implementation Of The Fire Protection Program, and associated Root Cause Investigation
- B2000-02294 Security Diesel Generator Monthly Surveillance
- B2000-02306 Extended Installation Paperwork For Security Diesel Temporary Modification Not Completed On Time
- B2000-02315 Failure To Correct a Previously Identified SSPS Test Switch Failure
- B2000-02316 Scheduled Work in U-1 Containment. Stopped Because Of Dose Rate
- B2000-02350 Enhancement For Rejected/Cancelled Engineering Requests and Design
   Change Plans
- B2000-02357 Operator Work-Around Program Deficiencies

- B2000-02370 Continued Problems With U1 Emergency Hatches
- B2000-02378 Math Error Causes Apparent Missed Balance of Plant Surveillance Requirement 7.10.1-2
- B2000-02406 Containment Hatch Equalizing Valve Kit Incorrect
- B2000-02421 Operator Work-Around Program is Ineffective
- B2000-02422 Setpoint Discrepancy
- B2000-02426 High Energy Line Break Design Basis for AF Diesel Not In Updated Final Safety Analysis Report
- B2000-02462 CAF Questions & Concerns
- B2000-02475 Ineffective Corrective Actions And Records Control
- B2000-02477 Corrective Actions From Trend Investigation Ineffective
- B2000-02497 Nonconforming Conditions Are Not Being Properly Identified in Conditions Review Group
- B2000-02504 Loss of Phone Capability Emergency Notification System, Health Physics Network, and Nuclear Accident Reporting System
- B2000-02550 As Low As Reasonably Achievable
- B2000-02555 Discovery of High Radiation Condition in the Waste Gas Drain Tank Aisle
- B2000-02563 Excessive Residual Heat Removal and Component Cooling Water Pump Runs For Boron Sampling
- B2000-02594 Radiation Protection Steward Denied Access To Morning Department
  Meeting
- B2000-02597 Corrective Action Program Focus Area Self-Assessment Identifies Effectiveness Reviews Not Performed or Missing
- B2000-02617 Radioactive Waste Vendor Control Panel Located in Posted High Radiation Area
- B2000-02646 Workers Entered Contaminated Area Without Protective Clothing
- B2000-02654 Accumulator Dump
- B2000-02668 Notice of Violation For Deliberate Violation Of Radiation Protection Procedures On 11-2-99, And Associated Rot Cause Report
- B2000-02670 Contract Instrument Mechanics Hook Up To Wrong Pressure Switch
- B2000-02696 Lack Of Interest To Comply With CR [Condition Report] B2000-02185
   (Complacency and Overconfidence)
- B2000-02710 BOP RH-6 Procedural Enhancement Identified
- B2000-02718 Inadvertent Hold-Up Tank Water Transferred To The Spent Fuel Pool Transfer Canal
- B2000-02719 PCE [Personal Contamination Event] Number 00033
- B2000-02722 Draining of Unit 1 Pressurizer Level Instrument (1LT-0461) Causes Erratic Reactor Vessel Level Indication
- B2000-02736 Two Radiation Areas Found Unposted in the Radiation Protection Area
- B2000-02756 Seismic Event Registered and Instrument Out Of Tolerance
- B2000-02773 Failure to Initiate a Procedure Change Request in a Timely Manner
- B2000-02779 Safety Concerns
- B2000-02794 Workers Received Unplanned Intakes While Performing Work in the Pressurizer Coffins
- B2000-02803 Poor Radiation Practice by Contractor Technicians
- B2000-02812 Loop Stop Isolation Valve Repair Radiological Performance, and Associated Root Cause Evaluation Report
- B2000-02824 Failed to Place Quality Control Hold Tag
- B2000-02849 By-Passed Quality Control Hold Point
- B2000-02855 Unposted High Radiation Area in U1 Containment

- B2000-02898 Loop Stop Isolation Valve Work Radiologically Out of Control
- B2000-02907 Rupture Disc Per Design Lowers Margin for Transient
- B2000-02913 NRC Commitments Not Correctly Annotated in Refueling Administrative Control Procedure
- B2000-02926 Contractor Radiation Controls
- B2000-02930 As Low As Reasonably Achievable Completely Ignored
- B2000-02931 Unplanned Intakes
- B2000-02941 Inadequate Supervisor Review of Condition Report B2000-02898
- B2000-02951 Questionable Radiation Worker Practice
- B2000-02960 Contractor Radiation Technicians Not Ready
- B2000-02966 TRVC move from U-1 Containment to Fuel Handling Building
- B2000-02970 Missed Quality Control Hold Point
- B2000-02973 Poor Radiation Practices and Poor Safety Practice
- B2000-02981 In-Service Inspection Worker Contaminated
- B2000-02984 Supervisor Review Inadequate
- B2000-02987 Bypass Automatic RAPS For Dose Extensions
- B2000-02990 Uncomfortable Radiation Practice
- B2000-02995 Unposted High Radiation Area
- B2000-02996 Nuclear Oversight Identified High Radiation Area Boundary Improvement
- B2000-02997 Dose Equalization
- B2000-02998 Radiation Instrumentation Issues
- B2000-03000 Quality Assurance Program Requirements Not Being Met
- B2000-03004 Missed Quality Control Signature for Steam Generator Stud Ultrasonic Exams
- B2000-03010 Contamination in Containment Access Facility Higher Than Procedurally
   Allowed
- B2000-03011 Habitability in the Containment Access Facility Totally Unacceptable
- B2000-03027 Unacceptable Radiographs
- B2000-03033 Missed Quality Control Inspection Point
- B2000-03035 High Radiation Area improperly Posted And Trash/equipment Bags Not Labeled
- B2000-03037 Quality Control Hold Points Performed By Other Than Quality Control
   Inspector
- B2000-03046 Locked High Radiation Area Violation in U-1 Containment Access Facility
- B2000-03056 Common Cause Analysis to be Performed on High Radiation Area Condition Reports And Associated Common Cause Analysis
- B2000-03058 Common Cause Analysis on Intakes
- B2000-03077 Nuclear Oversight Identified Condition Reports Written By Radiation Protection Not Addressing Extent Of Condition
- B2000-03078 Premature Cancellation of Security Badges
- B2000-03086 Outage Dose Goals Exceeded by Several Departments
- B2000-03088 Unposted High Rad Area
- B2000-03093 Untimely Review of Condition Report B2000-02966 (Radiation Protection)
- B2000-03096 High Number of NRC Allegations About Byron
- B2000-03110 Common & Continuous Problems During B1R10
- B2000-03117 Residual Heat Removal Pump Discharge Pressure Increase in Standby Condition
- B2000-03121 Loss of Coolant Accident Analysis Assumptions Regarding Safety
   Injection Accumulator Available Volume

B2000-03150 Operations Self-Assessment Program Weaknesses Discovered During Program Turnover B2000-03181 Exposed Plywood Board Found During NRC Resident Inspector Walkdown B2000-03186 High Contamination Area Rope And Posting On Floor B2000-03191 Isotopic Analysis Of Soil Around U-1 Containment Access Facility And Outage Sealands B2000-03195 Nuclear Oversight Review of Performance Indicator for Occupational **Exposure Control Effectiveness** B2000-03227 Residual Heat Removal and RY Piping Temperature Evaluation Required per BVP 900-9 B2000-03256 Routine Monitoring and Assessing of Non-Licensed Operator Rounds by **Operations Management** B2000-03258 Corrective Actions For Operations Self-Assessment Not Adequately Implemented B2000-03260 Turnover Issues From Past Operations Plant Status Self-Assessment B2000-03261 Operator Log Issue Identified During Past Operations Plant Status Self-Assessment B2000-03263 Main Control Board Walkdown Issues Identified During Past Operations Plant Status Self-Assessment B2000-03264 Apparent Reluctance to Initiate Condition Reports B2000-03281 Mis-numbered 50.59 Screening B2000-03290 Missed Sample on 0GW8000/8003 Limiting Condition for Operation Action Requirement Sample B2000-03301 Mis-Numbered 50.59 Screening B2000-03302 50.59 Screening Documented on Previous Procedure Form B2000-03362 Out of Service Discrepancies Cause Rework B2000-03377 U-2 Residual Heat Removal 618 Loop Circuit Card Deficiencies B2000-03381 2RH Train Configuration Control • B2000-03390 Degraded Control of Plant Equipment B2000-03407 Significant Operations Event Report 90-03 Was Not Adequately Included In Operations Training B2000-03415 Apparent Violation of OP-AA-101-301 B2000-03417 Violation Of NRC Commitment Not Recognized • B2000-03442 Stop Lube Job on 1WO056A B2000-03447 1CV8392B Not Returned to As-Found Position Following Maintenance • B2000-03481 Motor Operated Valve Limit Switch Left Outside of Acceptance Criteria • B2000-03492 Recurring Contamination Outside 1B CV Pump Rm B2000-03495 Increased Dose Rates in Area 5 &7 Due To Safety Injection Lines B2000-03496 Operations Activities Major Contributor to Area Contaminations B2000-03497 Emergency Core Cooling System Vents in AREA 5/7 Encrusted with Boron B2000-03531 Hostile Work Environment for Not Violating 82-12 Letter B2000-03549 Operations Focus Area Self-Assessment Found Issues in Operator Logs That Met Condition Report Threshold, But No Condition Reports Were Initiated B2000-03550 Operations Focus Area Self Assessment Found That a Previous Focus Area Self Assessment Was Performed by an Unqualified Team Leader B2000-03551 Operations Focus Area Self Assessment Found Issues With Timeliness and Adequacy of Corrective Actions

- B2000-03584 Issues Identified by Nuclear Safety Review Board, Safety Conscious
   Work Environment Interviewers, and Safety Committee Not In Corrective
   Action Program
- B2000-03592 Licensee Event Report 454-99-001 Commitments
- B2000-03610 BOP CS-08 Flush Increases Dose Rates In Area
- B2000-03615 Security Patrol Officer's Radio Would Not Receive
- B2000-03624 Corporate Procedure Discrepancy
- B2000-03633 Fitness For Duty Issue Requires Clarification
- B2000-03644 NRC Senior Resident Control Room Observations
- B2000-03645 Result of Common Cause Analysis on Condition Report Generation
- B2000-03650 Comments from American Nuclear Institute Insures Assessment (ANSI N626.1 and Section XI)
- B2000-03699 Corrective Action Program Documentation Missing or Not Generated
- B2000-03670 Maintenance Rule Functional Failure Monthly Review for October 2000
- B2000-03671 Maintenance Rule IA1 Instrument Air Dryer Function (a)(!)/(a)(2) Review
- B2000-03672 Operating Experience Document OE11667 Effects of B-10 Depletion
   Not Accounted for by Procedure
- B2000-03673 Failed Post Maintenance Test on Rupture Disk Replacement
- B2000-03674 Improvements to BRP 5510-13 and BRP 5510-13T1
- B2000-03679 Failure to Send Fire Extinguisher Off-site for Hydro Test
- B2000-03683 Unable to Obtain Samples for Unit 2 Accumulator Monthly Surveillance
- B2000-03699 Corrective Action Program Documentation Not Generated
- B2000-03704 50.59 Screening Requires Rework
- B2000-03739 Administrative Problems With the Employees Concerns Program
- B2000-03753 Potential Enhancement to Better Define the 50.59 Expectations for the Out-of-Service Program
- B2000-03770 Apparent Cause Evaluation Quality Improvement for 1SI052 Added Work
- B2000-03820 Corrective Action Program Improvements
- B2000-03836 Minor Deficiencies in Effectiveness Review Compliance With AD-AA-106, Corrective Action Program
- B2000-03911 Minor Deficiencies in Effectiveness Review Compliance With AD-AA-106, Corrective Action Program
- B2000-03935 Common Cause Analysis Identifies Inadequate Contractor Supervisor
   Oversight

# Licensee Effectiveness Reviews of Corrective Actions for Significant Conditions Adverse to Quality

## <u>Number</u>

<u>Title</u>

- 00008447-02 Effectiveness Review for LER [Licensee Event Report] 454-96-019
- 00008455-03 Effectiveness Review for Safety Injection Pump Vent Valve Found Out of Position
- 00008470-03 Licensee Event Report 98-009, Perform Effectiveness Review
- 00008494-48 Perform Effectiveness Review
- 00008494-49 Perform Effectiveness Review
- 00008512-01 Effectiveness Review for Wrong Test Switch Opened to Disable 345 KV
   [Kilovolt] Bus Tie Breaker
- 00008524-05 Perform Effectiveness Review
- 00008528-05 B1999-01455 Complete Effectiveness Review

- 00008963-01 Perform Effectiveness Review of Trend Investigation
- 00008973-02 Perform Effectiveness Review 454-230-97-SCAQ00035-06
- 00008984-04 Perform Effectiveness Review
- 00008984-06 Perform Second Effectiveness Review
- 00008985-04 Perform Effectiveness Review
- 00008986-06 Perform Effectiveness Review of Procedure Adherence
- 00011004-02 Effectiveness Review for Reactor Trip Due to Age Related Failures of Redundant Power
- 00011006-01 Effectiveness Review for Exceed Licensed Power Level Due to Calorimetric Instrument
- 00011018-03 Effectiveness Review for Turbine Valve Surveillance Difficulties
- 00011020-05 Perform Effectiveness Review
- 00011053-03 Effectiveness Review
- 00011053-04 Effectiveness Review
- 00011199-17 B1999-01912 Perform Effectiveness Review on Root Cause Report and Licensee Event Report
- 00011289-06 B1999-01956 Perform Collective Effectiveness Review Licensee Event Report/Root Cause Report
- 00011297-06 B1999-01973 Collective Effectiveness Review
- 00011419-06 Perform Effectiveness Review
- 00012616-06 B1999-02307 Perform Root Cause Report Effectiveness Review
- 00012619-16 B1999-02305 Perform Effectiveness Review
- 00013878-14 B1999-02572 Perform Effectiveness Review of Corrective Actions From Action Tracking Item 00008982
- 00013878-15 B1999-02572 Perform Effectiveness Review
- 00015082-06 B1999-02924 Perform Effectiveness Review
- 00015166-15 B1999-02951 Perform Effectiveness Review
- 00015385-39 B1999-02994 Procedural Adherence Trend
- 00015573-06 B1999-02999 Perform Effectiveness Review
- 00015931-06 B1999-03124 Perform Effectiveness Review
- 00016203-25 B1999-03181 Perform Effectiveness Review
- 00016227-35 Effectiveness Review for B1999-03225 Self-Contained Breathing Apparatus Qualifications Questioned
- 00016313-06 B1999-03195 Perform Effectiveness Review
- 00016986-06 B1999-03379 Perform Effectiveness Review of Licensee Event Report/Root Cause Report
- 00017103-34 B1999-02997 Perform Effectiveness Review
- 00017103-36 B1999-02997 Perform Effectiveness Review
- 00018881-07 B1999-03993 Perform Effectiveness Review
- 00019471-06 B1999-04215 Perform Effectiveness Review
- 00020413-06 B1999-04463 Perform Effectiveness Review of Root Cause Report
- 00021101-06 B1999-04599 Collective Effectiveness Review
- 00021309-17 B1999-04645 Perform Effectiveness Review of Corrective Actions
- 00021748-19 B2000-00068 Perform Effectiveness Review
- 00022881-21 B2000-00282 Perform Effectiveness Review
- 00023285-18 B2000-00374 Perform Effectiveness Review
- 00023286-15 B2000-00329 Perform Effectiveness Review
- 00025295-16 B2000-00760 Perform Effectiveness Review on Corrective Action to
   Prevent Recurrence 1
- 00027202-15 B2000-01079 Collective Effectiveness Review

00027388-05 B2000-01093 Perform Effectiveness Review

# Licensee Self-Assessment Reports

Title

- Nuclear Generating Group Focused Self-Assessment Report, "50.59 Program Effectiveness," June 29, 2000
- Focus Area Self-Assessment Report, "Heat Sink Performance," August 21-September 1, 2000
- Maintenance Quarterly Assessments, 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Quarter 2000
- Engineering Quarterly Assessments, 1<sup>st,</sup> 2<sup>nd</sup>, and 3<sup>rd</sup> Quarter 2000
- Engineering Monthly Assessments, January, February, April, May, July, August 2000
- Focus Area Self-Assessment Report, "Post Maintenance Testing," September 29, 2000
- Focus Area Self-Assessment Report, "Flow Accelerated Corrosion Database," July 14, 2000
- Focus Area Self-Assessment Report, "Assess Byron Appendix J (Local Leak Rate Test) Program Predefines and Procedures," July 12, 2000
- Focus Area Self-Assessment Report, "Assess Byron Technical Requirements Manual Versus Non-Safety Related Visual and Functional Test Procedures," September 30, 2000
- Extent of Condition Review, "Flood Protection (Review of Essential Service Water Pump Rooms)," July 21 to August 14, 2000
- Focus Área Self-Assessment Report, "Foreign Material Exclusion Program Effectiveness," March 13-31, 2000
- Focus Area Self-Assessment Report, "Effectiveness Review of Nuclear Station Procedure CC-AA-201, "Plant Barrier Control Program.""
- Focus Area Self-Assessment Report, "Maintenance Rule," April 3-7, 2000
- Focus Area Self-Assessment Report, "NEI/NRC Performance Indicators," April 24 to May 11, 2000
- Focus Area Self-Assessment Report, "Adverse Weather Preparations (Hot Weather)," May 3-12, 2000
- Focus Area Self-Assessment Report, "Flood Protection (Review of the Diesel Oil Storage Tank Rooms)," May 1-10, 2000
- Focus Area Self-Assessment Report, "Implementation Effectiveness of the Rework Program," March 17, 2000
- Focus Area Self-Assessment Report, "Byron Station Instrument Maintenance Department," November 1-20, 2000
- Focus Area Self-Assessment Report, "Physical Work Request Document Control," September 8, 2000
- Focus Area Self-Assessment Report, "Implementation Effectiveness for Control of Measurement and Test Equipment," August 29, 2000
- Focus Area Self-Assessment Report, "Modification Program Process Handoffs," July 7-23, 2000
- Focus Area Self-Assessment Report, "Identification and Resolution of Problems," October 16-27, 2000
- Byron Station Operational Areas Assessment 1st Quarter 2000
- Byron Station Operational Areas Assessment 2nd Quarter 2000
- Byron Station Operational Areas Assessment 3rd Quarter 2000

- Byron Station Training Areas Assessment 1st Quarter 2000
- Byron Station Training Areas Assessment 2nd Quarter 2000
- Byron Station Training Areas Assessment 3rd Quarter 2000
- Operations Department Monthly Self-Assessment Report for April 2000
- Operations Department Monthly Self-Assessment Report for May 2000
- Operations Department Monthly Self-Assessment Report for July 2000
- Byron Station Training Department Self-Assessment Report, "Comprehensive Self-Assessment of Byron Operations Training Programs," July 28 Through August 4, 2000
- Focus Area Self-Assessment Report, "Examination Security and Administration," July 19 Through July 25, 2000
- Focus Area Self-Assessment Report, "Operator Work-Around Program I," Revision 0, April 17 Through April 27, 2000
- Focus Area Self-Assessment Report, "Operator Work-Around Program I," Revision 1, November 27, 2000
- Focus Area Self-Assessment Report, "Operator Work-Around Program II," Revision 0, July 12 Through July 20, 2000
- Focus Area Self-Assessment Report, "Operator Work-Around Program II," Revision 1, November 27, 2000
- Focus Area Self-Assessment Report, "Byron Station Operating Department Procedures," Revision 0, August 25, 2000
- Focus Area Self-Assessment Report, "Byron Station Operating Department Procedures," Revision 1, November 27, 2000
- Focus Area Self-Assessment Report, "Reactivity Management," Revision 0, June 30 Through July 5, 2000
- Focus Area Self-Assessment Report, "Reactivity Management," Revision 1, November 30, 2000
- Focus Area Self-Assessment Report, "Fire Protection," Revision 0, June 19 Through June 26, 2000
- Focus Area Self-Assessment Report, "Fire Protection," Revision 1, November 27, 2000
- Focus Area Self-Assessment Report, "Field Observations Operations Rounds, Supervisory Oversight, Self-Checking, and Verification Practices," Revision 0, March 13 Through March 27, 2000
- Focus Area Self-Assessment Report, "Field Observations Operations Rounds, Supervisory Oversight, Self-Checking, and Verification Practices," Revision 1, November 27, 2000
- Focus Area Self-Assessment Report, "Operations Plant Status Control," Revision 0, March 12 Through March 19, 2000
- Focus Area Self-Assessment Report, "Operations Plant Status Control," Revision 1, November 30, 2000
- Focus Area Self-Assessment Report, "Non-Licensed Operator Migration Training Program," Revision 0, February 7 through February 14, 2000
- Focus Area Self-Assessment Report, "Non-Licensed Operator Migration Training Program," Revision 1, December 1, 2000
- Focus Area Self-Assessment Report, "Operations Self-Assessment and Corrective Actions Program Implementation and Adherence," November 3 Through November 15, 2000

# Prompt Investigation, Trend Investigation, and Root Cause Reports

<u>Title</u>

- Root Cause Report, "Ineffective Corrective Actions As Evaluated by Effectiveness Review (Trend 96-0047) Condition Report B2000-00666," dated March 3, 2000
- Trend Investigation Report, "Engineering Inattention to Detail (ITD) Errors in Both Frequently and Infrequently Performed Engineering Tasks Have Increased Over the Past Year Across all Engineering," dated June 12, 2000
- Prompt Investigation Report, "Welding Causes Spurious Bistable Actuations on Steam line Pressure Protection Channels," dated July 14, 2000
- Root Cause Report, "Root Cause Evaluation of Byron Corrective Action Program Deficiencies Identified in CR B2000-02218," dated September 2, 2000
- Root Cause Report, "Bases Document Review Results In Addition of Valves to Byron Inservice Testing Program," February 2, 2000
- Root Cause Report, "Failure of Air Cooled Breakers 3-7 and 10-11 to Close on Demand Places Switchyard System in Maintenance Rule (a)(1) Status," September 25, 2000
- Root Cause Report, "Mechanical Maintenance Personnel Unexpectedly Encounter Combustible Hydrogen Atmosphere at Sulfuric Acid Storage Tank Due To Lack Of Precautions in Work Instructions," July 7, 2000
- Trend Investigation Report, "Essential Service Water System SX3 Function Classified Maintenance Rule (a)(1)," June 7, 2000
- Root Cause Report, "Unit 2 Load Rejection Reactor Trip Caused by Line 0622 Fault and Failed Air Circuit Breaker 10-11 Load Rejection Contact," January 25, 2000
- Root Cause Report, "Anomalous Trace for Rod Drop Testing of Rod Control Cluster Assembly (RCCA) in Core Location K-08 Caused by Incomplete Electrical Contact at Reactor Head Junction Panel Connection," December 21, 1999
- Root Cause Report, "Refuel Machine Hoist Over-Travel Limit Failure," January 15, 2000
- Root Cause Report, "B1R10 Loop Stop Isolation Valve Project Over Dose, Schedule, and Budget Due to Inadequate Planning and Execution," November 8, 2000, (Revised November 16, 2000 Based on Westinghouse/PCI Meetings)
- Root Cause Report 00021101, "Mis-Positioned Fuel Assembly Due to Human Error"
- Root Cause Report 00021136, "Inadvertent Carbon Dioxide Discharge Into Zone 1S-43"
- Root Cause Report 00026950, "Breaker Mis-Positioning During Solid State Protection System Bi-Monthly Surveillance"
- Root Cause Report 00027202, "Inadequate Verification Practices Results in Wrong Valves Being Closed"
- Root Cause Report 00031647, "Operations Stroke of 2CS001A With Electricians in Proximity"
- Root Cause Report 00032698, "Unit 2 Low-2 Steam Generator 2C Reactor Trip Initiated by 7300 Card Failure and Incorrect Operator Response"
- Root Cause Report 00034257, "Unit 0 Byron Operating Surveillance Requirement Procedure 7.10.1-2, "Control Room Ventilation System Train 0B Monthly Surveillance," Not Performed for the Required 10 Hours"
- Root Cause Report 00035736, "Transfer of the Wrong Hold Up Tank to the Spent Fuel Transfer Canal"
- Trend Investigation 00021309, "Big Picture" of Why Components Are Being Mis-Positioned"

- Root Cause Report, "Lack of Management Oversight of the Department Training Coordinator Position Resulted in Continued Fire Brigade Qualification Deficiencies Within the Operations Department," June 9, 2000
- Root Cause Evaluation Report, "Fire Protection Program Problems Are Reoccurring Because Byron Station Fire Protection Program Has A Lack of Ownership," September 18, 2000
- Trend Investigation Report, "Potential Trend in Materials Management," April 5, 2000
- Trend Investigation Report, "Procedure Quality," August 24, 1999
- Trend Investigation Report, "Clean Area Contamination Events Experienced at Byron Station," April 18, 2000
- Trend Investigation Report, "Adverse Security Department Human Performance Tend Due to Inattention to Detail While Performing Routine Job Tasks, and Inadequate Program Monitoring/Management as a Result of Increased Human Errors from January 01, 1999 to April 4, 2000,"
- Trend Investigation 00023286, "Adverse Trend of Injuries Within the Operations Department"

# Licensee Apparent Cause and Common Cause Evaluations

# Number

<u>Title</u>

- 00023904 Quality Control Hold Tag Not Placed on Valve
- 00030871 Verbal Altercation Between Personnel
- 00031636 Loss and Restoration of DC [Direct Current] Power to 2PM11J for Unknown Reasons
- 00034694 Operator Work-Around Program is Ineffective
- 00035992 Draining of Unit 1 Pressurizer Level Instrument (1LT-0461) Causes
   Erratic Reactor Vessel Level Indication
- 00036699 Overall Contractor Practices During Refueling Outage
- 00038603 2A Residual Heat Removal Train Configuration Control

# **Nuclear Oversite Assessments**

<u>Number</u>

<u>Title</u>

•	NOA-06-00-PS04	Byron Station Assessment Report, Nuclear Oversight Assessment, Procedures, dated June 14, 2000
•	NOA 06-00-ES06	Air and Motor Operated Valve Programs
•	NOA 06-00-ES01	Document Control, Control of Purchased Materials, Parts, and Components, and Service Water Program
•	NOA 06-00-MS01	Materials Management, Procurement, and Maintenance Functional Area Corrective Actions
•	NOA 06-00-ES04	Inservice Inspection Program
•	NOA 06-00-ES03	Engineering Test Control, Measuring and Test Equipment, Quality Assurance Records, and Corrective Action Effectiveness
•	NOA -06-00-ES05	Byron Station Assessment Report, Nuclear Oversight Assessment, Corrective Action Program, dated July 13, 2000
•	NOA 06-00-OP01	Byron Station Assessment Report Nuclear Oversight Assessment NOA-06-00-OP01 - Operator Work Practices
•	NOA 06-00-OP03	Byron Station Assessment Report Nuclear Oversight Assessment NOA-06-00-OP03 - Summer Readiness
•	NOA 06-00-PS01	Byron Station Assessment Report Nuclear Oversight Assessment NOA-06-00-PS01 - Training Administrative Requirements
•	NOL 06-00-014	Byron Station Assessment Report Nuclear Oversight Surveillance - Electrical Safety Review
•	NOL 06-00-042	Byron Station Nuclear Oversight Surveillance Report - Fundamentals
•	NOL 06-00-049	Byron Station Nuclear Oversight Surveillance Report - Assessment of Material Condition/Engineering Issue
•		Identification, Resolution, and Prevention Corrective Action Program and Assessment Report, Overall
•		Nuclear Generation Group (NGG) Performance, September 2000 Nuclear Oversight, Mid-West ROG Assessment Report, October 2000

# **Operability Determinations**

Number <u>Title</u>

- 00-001 19-AQ-44 Discrepancy 231Z Trip Coil Voltage
- 00-002 0VC05YB Intermittent Operation
- 00-004 2D DOST Room Door 0DS-SD194 Seal

## Miscellaneous Documents

- System Health Indicator Program [SHIP] Byron Station for October 2000
- LER 50-457/1999-001-00, "Unit 2 Generator and Subsequent Reactor Trip due to a Spurious Generator Stator Ground Relay (GIX-104) Actuation and Subsequent Rod Control Problems"
- LER 50-454/2000-001-00, "Inservice Testing Not Performed on Several Valves Due to Inadequate Program Scope Development," March 3, 2000

# List of Abbreviations